The Impact of Modernization in the Philippines II*

George M. Guthrie
The Pennsylvania State University

Frank Lynch, S. J.
Ateneo de Manila University

Second Technical Report
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ABSTRACT

This report contains four chapters, each chapter representing a project of the Ateneo-Penn State Basic Research Program.

The first chapter, concerning the *Iloilo in transition study*, describes the fishing industry of Estancia, Iloilo, a booming fishing town in central Philippines, and attempts to delineate the relationships among the different socioeconomic classes involved in it.

The second chapter is a review of the research on social control systems in different non-Western societies. These systems are studied with the popular dichotomy between norm-oriented control and sanction-oriented control serving as a guideline. However, the ultimate inadequacy of this dichotomy is pointed out, and alternative formulations are presented. The concepts delineated in this review were employed in a study of autonomy and dependency among Filipino children which was conducted in Bicol recently.

The third chapter presents findings on the phenomena of altruism and aiding responses. Studies reviewed are classified as either naturalistic, correlational, or experimental in approach. Variables found to bear a significant relationship to altruism and the aiding response are discussed, and suggestions for the conduct of future research on altruism and aiding responses are presented. The concepts outlined here will form the basis of a future study of the aiding response in the Philippines.

The last chapter, on the *Cognitive mapping study*, shows how data gathered during the second six months of the project confirm the suitability of the techniques being employed. A certain measure of support is provided for the psychological validity of structural models. Regional variations in the Tagalog kinship system are described, and a hypothesis on the relationship between kinship terminology and social status is presented.

Contents

Introduction

This volume continues to report the results of research conducted under the Ateneo-Penn State Basic Research Program. This collaborative effort of two universities, the Ateneo de Manila and The Pennsylvania State University, was described earlier, in the first technical report. As indicated there, this program is made up of a number of relatively independent research projects based at the Ateneo and directed by both Filipinos and Americans. This volume contains contributions by David Szanton and Ronald Himes, who follow up their project reports found in the first technical report, and by Rachel Hare and Elizabeth Midlarsky, who outline the concepts applied in different research projects which will be reported later.

Szanton describes the growth and structure of the fishing industry in Estancia, a coastal town in Panay. Located near a rich fishing area, Estancia has grown markedly over the last decade, and increasing financial returns have gone hand in hand with the development of a complex fishing and marketing organization. Szanton's report presents some idea of the complex relationships among the big entrepreneurs and traders, and those who work for shares on large boats, fish from their own small craft, and buy and sell some of the catch on the local market. A grasp of the structure that Szanton outlines enables us to understand more clearly some of the functions of various individuals, as well as some of the economic and social pressures under which the system operates. One observes an inherent system of checks and balances which stabilizes the livelihood of many of the people involved, and, at the same time, restricts the innovations which might appeal to someone of more adequate resources. One gains the impression that although many innovations have been added to age-old techniques, few of the time-proven methods have been totally replaced.

The second paper, by Rachel Hare, discusses a topic familiar to those who read in the area of culture and personality: *shame* and *guilt* societies. In the former, the individual's behavior is controlled primarily by the opinions of others around

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suggest some resolution of the question of the relative fruitfulness of experimental and naturalistic approaches.

In his report on cognitive mapping, Himes tells of regional variations in Tagalog kinship terminology. Differences in classification of relatives appear to be related to proximity to Manila. This suggests that social mobility may be exhibited in a changing vocabulary, while resistance to innovation may be a general trait encompassing many phases of social change, including linguistic habits. As the research develops, we can hope to learn more about the relationship between social mobility and linguistic change.

Since the processes of modernization are so numerous, there must be many techniques of investigation. We see in the Ateneo-Penn State Basic Research papers the application of procedures familiar to anthropologists, and the use in an unfamiliar setting of techniques preferred by psychologists.

GEORGE M. GUTHRIE

The Fishing Industry of Estancia, Iloilo*

DAVID L. SZANTON

Estancia, Iloilo, 135 kilometers northeast of Iloilo City, along the eastern coast of Panay Island, lives and thrives on its fishing industry. In fact, the livelihood of an estimated 70 per cent of its more than 15,300 residents depends directly on the bounty of the adjacent Visayan Sea. For thanks to the proximity of rich fishing grounds, a well-protected harbor, the only deep-water pier in the area, and adequate land transportation, Estancia has become a major productive and commercial center for the fishing industry of the central Philippines. Fishermen from the town itself, as well as from other communities all around the Visayan Sea, are in Estancia assured a large and active market for their catches throughout the year.

This is a relatively new situation, however, since the town's importance as a fishing center began only a few years before the outbreak of the Second World War. Since then it has grown so rapidly that it has taken on many of the characteristics of a small "boom town." Immigrants from all parts of the Visayas and Luzon have come to Estancia to either work as fishermen, or engage in various related activities, like the preservation and marketing of fish, which inevitably spring up around a new and growing industry. Although some older towns in northern Panay are still larger in total population, Estancia leads them all in municipal income

and commercial activity. Its rate of population growth is among the highest in the province, and the volume of its population concentrated in the población, as opposed to the barrios, is unique.

Activated by its expanding fishing industry, Estancia provides a living model of rapid economic growth in the rural Philippines. An analysis of the town's development over the past 30 years should provide clues and hypotheses concerning the nature and direction of economic development and social change in Philippine communities, especially those whose residents are beginning to exploit the rich natural resources the country offers. This paper, the first step in such an analysis, deals largely with the technology and economics of Estancia's commercial fishing industry, touching only lightly on subsistence fishing and the many relevant sociological issues.

Prior to the Second World War the fishing grounds immediately offshore were so prolific that Estancia became known as the "Alaska of the Philippines." Transportation, storage, and marketing facilities were so poorly developed, however, that tons of fish were often left to rot along the shore for lack of salt or lack of buyers. The town at that time had neither an ice plant nor cold storage facilities, and although a small government-sponsored cannery was inaugurated during the late 1930s, it was inadequate to process the volume of fish caught. The only regular means of transporting fish from Estancia to Iloilo City (and from there to other Visayan towns and Manila), was a single cargo boat which made the trip once a week. With these technological limitations, it is not surprising that the town grew slowly. In 1903 it had 2,461 people; in 1918, 2,805. By 1935 it was reported to have 3,083 residents. Not until the late 1930s, with the opening of the national road between Estancia and Iloilo City, and the construction of the town pier, did the population begin to increase very rapidly. With transportation problems solved, the fishing industry began to flourish, and by 1939 the town's residents totaled 7,608. Though the Second World War saw the destruction of the central part of the town by USAFFE forces, it failed to produce any significant effect on the growth trend, which has continued un-

diminished since then. The following tables give some indication of Estancia's demographic trends since the beginning of the century.

Table 1. Estancia's population, 1903-1966.

	1903*	1918*	1935**	1939*	1948*	1960*	1966***
Population	2.461	2,805	3,083	7,608	8,781	13,323	15,300+

Sources: *Bureau of the Census, Manila, Philippine Islands, 1903, 1918. 1939, 1948, and 1960.
           **Yearbook of Panay, Iloilo City, 1935.
           ***Municipal Census, conducted by town mayor, December 1966.

Table 2. Population growth rate of Estancia, Iloilo City, and other Iloilo towns, 1948-1960.

	Estancia	4 adjacent towns	All Iloilo towns	Iloilo City
Population growth rate, 1948-1960 (per cent)	51.7	15.4	15.4	37.4

Source: Calculated from Bureau of the Census figures for 1948 and 1960.

Table 3. Overall population density of Estancia and Iloilo Province, 1948 and 1960.

	Estancia (persons/hectare)	Next most densely populated town in Iloilo Province (persons/hectare^2)	Provincial mean (persons/hectare^2)
1948	2.75	(Pototan) 2.58	1.34
1960	4.20	(Leganes) 2.87	1.55

Source: Calculated from Bureau of the Census figures for 1948 and 1960.

Table 4. Proportion of population in central core (in poblaciór and contiguous portions of barrios) of Estancia and other Iloilo towns, 1948 and 1960.

	Estancia	*Mean of Iloilo towns*
1948 (per cent)	34.5	ca 16
1960 (per cent)	39.7	ca 17

Source: Calculated from Bureau of the Census figures for 1948 and 1960.

During the 1920s and 1930s fishing was still largely a subsistence activity carried out either with paddle- or sail-powered bancas, or by wading in shallow waters. It employed a wide variety of techniques, including hooks and lines, traps, poisons, and nets. Commercial fishing was largely dominated by resident Chinese boat owners and dealers. Technologically, it was quite simple, consisting mainly of large fish corrals, or *punót*, along the coast, and oar-powered *sapyau* in the deeper waters. A sapyaw outfit was composed of two long bancas carrying from 18 to 24 men who spread and then raised a large circular net under free-swimming schools of fish. Many varieties of fish were regularly caught, but the mainstay of the industry was the *tuloy*, or oil sardine (*Sardinella longiceps*). Fish prepared for sale in distant markets were either canned, cooked, or packed in salt. Drying of brine-soaked fish, the most common practice today, was relatively less important at that time.

Since the Second World War fishing has continued to intensify. The industry has been radically altered, however, by three major innovations: the large-scale drying of fish before marketing, the utilization of motor power, and the widespread use of explosives; the latter two may be considered as technical fallout from the war. The use of dynamite and other locally compounded explosives, along with extremely intensive fishing by ordinary means, has destroyed the once prolific fishing grounds immediately offshore. However, this loss has been more than offset by the postwar introduction of inboard gasoline and diesel engines, which have allowed local fishermen easy access to still rich fishing grounds that are hardly within reach by oar or sail. These engines have also made it possible for hundreds of fishermen from other towns

in northern Panay, southern Masbate, the Bantayan Islands, and northern Negros to reach Estancia conveniently and market their fish there. With a good wharf and three regular interisland steamers to Manila every week, Estancia permits these fishermen to sell their catches in the huge Manila market. Easy and direct access to Manila has been a great stimulus to the fishing industry throughout the Visayas, but because of its role as marketing, transshipment, and supply center for its own outfits as well as an increasing number of outfits from other communities, Estancia has received a disproportionately large share of the wealth created by the expanding industry. Thus, despite the declining fish population in the immediate vicinity of the town, Estancia continues to grow as a productive and commercial center for the fishing industry in the Visayan Sea.

The actual size of shipments from Estancia to Manila varies with the local supply and the prices being offered at the available markets. However, local estimates are that an average of 80 per cent of the fish that pass through Estancia eventually reach Manila. Some ten per cent is usually sold in Iloilo City, while about seven per cent is consumed in Estancia and other municipalities in Iloilo, Capiz, Aklan, and Antique. A mere three per cent is shipped to Mindanao. While yearly totals rise and fall on account of uncontrollable forces, 1966, which was locally considered a slightly below-average year, saw shipments of fresh and dried fish from Estancia to Manila valued at approximately five million pesos.

During the "open season," March 15 to November 15, which largely corresponds to the *habagat*, or southeast monsoon, fishing is at its height. Herring, sardines, and mackerel are running in large schools, and as many as 35 to 40 fishing outfits from Cebu, Samar, Leyte, and Luzon arrive in Estancia and swell the local population by about 1000 men for as many months as the fishing holds out. Some of these outfits set up independent operations in the town or in several of the nearby coastal or island barrios. Most, however, arrive to work under contract for various local entrepreneurs—some of whom are owners of local outfits, others, simply resident fish dealers. Known collectively as *pangayao*, or strangers, these nonresident fishing outfits do not appear to draw the

resentment of the local fishermen; the supply of fish at this time is so large that monopolizing the nearby waters is recognized as a practical impossibility. From May to September—normally, though by no means always, the best period of the year—some 200 to 400 tons of fish may be sent to Manila every week. Though prices fluctuate rapidly, varying with the species, quality, and quantity of fish on hand, Manila merchants send back to Estancia from ₱600,000 to ₱900,000 monthly during this period.

During the "closed season," November 15 to March 15 fishing for mackerel, herring, and sardines is prohibited by law in the waters of the Visayan Sea near Estancia.[1] This period roughly corresponds to the *amihan*, or northeast monsoon, which is the natural low point of the local fishing industry since only the smaller anchovies and slipmouths are running in quantity. At this time, shipments to Manila may decline as much as 90 per cent, while prices may be three or four times higher than the average for the rest of the year because of the limited supply. Thus, the repressive effect of an official closed season is somewhat diminished by the natural decline in fish supply during the proscribed period.

Estancia's Fishing Techniques

The fishing gear regularly used in Estancia is overwhelmingly varied. In a brief series of interviews we were informed of 52 distinct named methods of catching fish. To attempt to describe them all here would be tedious and beside the point. We have, however, selected six representative fishing techniques for relatively detailed description to give some idea of the local level of technology as well as the economics of both commercial and subsistence fishing.

The lawagan and the basnigan

The two largest and most important types of commercial fishing outfits regularly operating out of Estancia are the *lawagan* and *basnigan*. These outfits, operating with some 600 of Estancia's approximately 1100 fishermen, undoubtedly account for the majority of the fish landed. The lawagan is the larger of the two and potentially the more productive. Cur-

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[1] Cf. Fisheries and Administrative Order No. 13 and Amendments.

rently. eight lawagan are owned by six local operators, and
four other are based in the nearby Gigantes Islands.[2] These
outfits work only during the *dulúm*, the 20 to 22 relatively
dark nights of the lunar month when fish which would other-
wise move independently can be attracted and gathered into
schools by lights on board the boats.

Lawagan are composed of three distinct types of craft,
and carry a crew of 50 to 60 men. Going out to sea in the
mid- or late afternoon, lawagan are easily recognized: all the
boats are strung out in a straight line. At the head of the
line is a power boat with a large engine, the *lab-asan* (from
lab-as, fresh fish). It carries most of the catch and a crew of
18 to 24 men, and tows a net boat, the *lambatan* (from
lambát, net), which has another 18 to 24 hands on board
Towed along behind the net boat are three to five (usually
four) light boats, *iwagan* (from *iwag*, light in Tagalog), each
with a crew of three. Outfits operating from Masbate some-
times add a third large craft to carry the catch; this arrange-
ment relieves the power boat of its double function and pre-
vents the catch from being damaged by leaking oil or fumes
from the engines.

When the lawagan reaches its deep-water fishing grounds,
the net and power boats are anchored about 180 feet apart
parallel to each other. Between them and into the current
is spread a round haul seine, a very large scoop-shaped net.
The front of the net, with lead weights attached, is suspended
from a rope passing from one boat to the other, and can be
lowered as much as 40 fathoms (240 feet); the back of the
scoop, bouyed up by a series of bamboo floats, is carried be-
yond the boats by the current. The small light boats, which
have all the while been attracting schools of fish with their
powerful pressure lamps, are maneuvered into the area over
the net between the larger boats. One by one the lights are
extinguished until all the fish are concentrated around the
one remaining light boat at the center of the net. At this
point. the men on the two large boats haul in the rope
between them. simultaneously raising the front of the net

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[2] These islands. though politically part of the adjacent municipali-
of Carles. are economically tied to Estancia; that is, their fishermen
purchase their supplies and market their fish in Estancia.

and drawing the two boats together. The rest of the net is then hauled in, and the fish are dumped, unsorted, into baskets, *canastro*, or wooden boxes, *cahón*,[3] in which they are brought to shore in the morning.

The large, but relatively coarse, net of the lawagan is quite effective in catching a wide variety of pelagic fish, especially the popular *aguma-a* and *hasà-hasà*, adult and adolescent short-bodied mackerel (*Rastrelliger brachysoma*); the highly prized—and priced *-bulao*, striped mackerel (*Rastrelliger chrysozonus*); the *tabagák*, round-bodied sardine (*Sardinella fimbriata*); the *tuloy*, oil sardine (*Sardinella longiceps*); and a variety of *sap-sap*, slipmouths (of the genus *Leiognathus*).

Basnigan fish the same waters but operate on a somewhat different principle. Currently, there are 13 of them fishing in the area; eight are owned by Estancinhanons while five are from the neighboring town of San Dionisio.[4] The basnigan is the Visayan variant of the fishing outfit known as *pakpakan* in the Tagalog region. It consists of a single large—and handsome—banca-shaped craft some 60 to 90 feet long, with well-built outriggers projecting at least 30 feet from either side of the boat. All of the Estancia-owned basnigan are motor-powered, but three of the five from San Dionisio are still under sail. Each operates with a crew of from 18 to 25 men.

These craft usually leave port in the middle or late afternoon in order to reach their fishing grounds before nightfall. Though they can operate in ten fathoms deep open water, they prefer to fish at 20 fathoms at least to avo.d the possibility of snagging and losing the net at the bottom. As soon as it grows dark, a series of powerful lights at the prow of the boat—either kerosene pressure lamps or electric lamps powered by an on-board generator—are turned on to attract fish. Another light may be dropped into the water, two to

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[3] These boxes are among the local standard units of measurement for both fresh and dried fish, as well as the normal containers for fish being shipped to Manila and elsewhere. They measure 1.4 cubic feet, and prefabricated pieces cost between ₱1.60 and ₱2.00.

[4] Like the Gigantes Islands, San Dionisio is economically tied to Estancia.

four fathoms down. When sufficient fish have been gathered at the prow, the net, shaped like an inverted mosquito net, is spread directly under the boat and outriggers by means of pull ropes. Because the current angles the net somewhat behind the boat, dropping it over the side does not disturb the fish being gathered at the prow. Once the "bag-net" is in place, the lights at the prow are extinguished until only a "traveller," one movable light, remains. This light, placed on or just above the surface of the water, is slowly moved toward the center of the boat. When all the fish have congregated around the light, the men on the outriggers and at the ends of the boat are ordered to haul up the net. This must be done rapidly and smoothly to avoid fouling the net and allowing the fish, now more or less agitated, to escape before the edges of the net break the water. Once the net is up, it is drawn over to one side of the boat. If the catch is small, the fish may be dumped directly into boxes waiting on deck; if large, a long-handled scoop net is used to transfer the fish to the boxes to avoid tearing the main net with the weight of the catch.

The entire operation can be completed in as little as 20 minutes, but basnigan rarely "shoot the net" more than ten or 12 times in a single night. On one recent occasion, however, the owner of the outfit went along, and had the men lower the net 17 times; this accounted for a correspondingly larger catch. Nonetheless, even with the owner's presence, the pace on board is usually somewhat slow, to a large extent controlled by the rate of "schooling" of the fish around the lights.

Basnigan catch the same fish as lawagan, although the finer weave of their smaller net permits them to capture as well the highly profitable *gurayán* (*dilis* in Tagalog), or long-jawed and Indian anchovies (*Stolephorus commersoni* and *inau...*

The lawag. is about twice as expensive as the basnigan to own and operate. To build or purchase a new lawagan, complete with boats, engine, nets, and lights, requires an investment of from ₱30,000 to ₱35,000. Complete basnigan, usually built in Cadiz, Negros Occidental, cost from ₱15,000 to ₱16,000 today. It requires from ₱2100 to ₱2500 a month

to cover the fixed costs of operation on a lawagan—a sum which is spent largely on fuel and the rice of the crew; however, the amount that goes to maintenance and repairs, salaries for specialists on board, and a variety of small expenses is also substantial. Basnigan demand only ₱1100 to ₱1200 a month in operating expenses. On the other hand, the larger net of the lawagan allows it to catch as much as 500 to 600 boxes of fish in a single night. On a basnigan, a catch of 200 to 225 boxes is closer to the limit.

One handicap of the lawagan is its inability to catch the smaller fish which alone are numerous in local waters during the northeast monsoon. Some lawagan are simply taken out of operation at this time, while others are based in and operated off Palawan and Masbate, where larger fish can be found. However, such transfers involve still further expenses, and are warranted only if the catch is particularly good.

While the techniques and capacities of these large outfits, along with the skill and discipline of their crews, are important factors, two otherwise similar outfits often fish the same grounds with vastly different results. During the week April 1-8 of this year, two local lawagan caught over 3000 boxes of fish, while another two, fishing in the same area, took in less than 100 boxes altogether. Without the assistance of the sophisticated, but expensive, electronic fish-finding devices that are now available, luck—good or bad—plays a crucial role in the success or failure of every local outfit. Though fishermen on board have developed many "techniques" for controlling their luck—kissing images on Good Friday, smudging their boats and nets with incense, slaughtering a black pig at the launching of a new craft—Chance still seems to enjoy playing games with local outfits.

The crews on board these craft tend to be young, the majority of the men being in their late teens or early twenties. Somewhat fewer than half of them are married. While occasionally, fathers and sons, or brothers will be found working together, relatively few men on board are related to each other or to the owner or captain of the outfit. The fishermen comprise a comparatively free labor market, and shifting from one outfit to another is unimpeded. Long term highly personalized

relationships between the men and their employers do not seem to be especially frequent.

Fishermen are compensated for their labor in several ways. First, they are always provided by the owner of the outfit with rice—nowadays, sometimes mixed with corn—for two meals while on board. (This requires some 16 to 20 cavans per month on a lawagan, about one half that amount on a basnigan.) Fish from the outfit's catch fill out those meals. Any fish they catch with their own hook and line are, of course, theirs, and so are any small fish that may find their way from the boxes or canastro into odd corners of the boat, or are disentangled from the net after the bulk of the catch has been stowed away. Upon coming ashore in the morning, the men are given at least a small string of fish to sell or to feed their families. The bulk of their income, however, comes from a share, *parte*, in the catch.

The sharing system in the lawagan and basnigan

The share of a crewmember may be determined in several manners. Eight to ten years ago, some operators simply put one half of the gross value of the month's catch into the crewmembers' *"común"*; this común was then divided by shares among them. Under this system the owner absorbed all of the operating expenses with his half of the gross income. In more recent years, however, a different practice has prevailed; the owner first deducts the operating expenses from the total value of the catch, and then divides the remaining net income among the crew, "the boat," and himself.

Currently. there is a trend toward still another type of sharing system, one in which the crew receives two different forms of payment. Each morning, ten per cent of the catch is immediately sold to dealers awaiting the arrival of the boat, and the proceeds are immediately and evenly divided among the crew. This daily sum, known as the *diario*, varies, of course, with the catch. The rest of the catch is nominally "sold" to the owner at one peso a box. or—if the price of fish is very high at the time—at one and a half, two, or two and a half pesos per box. The payment for these fish, along with a variety of incentive payments, such as an extra 25 centavos per box for catches above 50 or 100 or 200 boxes in a single

night, goes into a común for division by shares at the end
of the lunar month.[5]

Though the share system has slight variations from one
outfit to another, its basic pattern is constant. No matter
how the común is established (proportion of the gross or the
net or per box landed), it is always divided into shares in
an accounting, *husai*, during the *sanag*, the six to eight nights
of full or near-full moon at the end of the month when the
outfit ceases operations because the fish can no longer be
attracted by lights. The share of an individual crewmember
depends upon the difficulty of his task or its importance in
the total operation. On the lawagan with its large crew, the
común is usually divided into 70 to 85 shares, while on the
bastagan, with about half the lawagan's crew, the común is
normally broken into about 35 or 40 shares.

The master fisherman, called *manog-dulóng* (from *dulong*,
to lead) or *piloto*, is the effective captain of the outfit since
he decides with the owner where to fish, handles the account-
ing of the shares, does most of the hiring and firing, directs
operations at sea, and, generally, represents the men to the
owner and vice versa. Currently, he receives four or four and
a half shares. He usually receives other forms of compensa-
tion as well—sometimes a small fixed salary or free sacks of
rice, but most often a special commission (currently about 50
centavos a box) for each box of fish landed during the month.

His assistant receives about one half of his remuneration.
The engineer, *maquinista*, in charge of the operation of the
engines and lights on board, receives two shares plus a fixed
salary of ₱60 to ₱80 a month. The assistant engineer is
given two shares. The steersman, *timonél* (from *timón*,
rudder), gets two or two and a half shares for keeping the
outfit in the channels and off the rocks.[6] The dynamite
specialist, *manog-buhí* (from *buhì*, to release) is paid two and
a half shares. The net men, *lambatero* or *manog-pukót* (from

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[5] The term "común" may also refer to the gross value of the
catch, an ambiguity probably resulting from changes in the structure of
the sharing system.

[6] None of the local outfits use marine charts or seem to need
them. They sail to the fishing grounds by dead reckoning, with the
occasional help of an oil company road map.

lambát and *pukot*, both meaning net), responsible for the maintenance and order of the nets both on shore and at sea, receive two shares.

Several other crewmembers with specialized or particularly tiring jobs are rewarded with one and a half or one and one fourth shares. These are the *pondero*, the man who takes the soundings; the *limasero*, the cleaners and bailers; the net menders, *manog-puná* (from *puná*, to make nets); the light men, *manog-sugá* (from *sugá*, light), on the lawagan light boats; and the corner men on the basnigan outriggers, the *manog-dapai-dapai* (from *dapai-dapai*, the point at which the outrigger is attached to the support from the boat). The unspecialized fisherman, known as *buso* or *ultimó*, who comprise about one half of the crew, receive a single share each; their role is limited to raising and lowering the nets as directed.

With the possible exception of the maquinista, who might have spent some years in high school or taken a special training course, few of these men have gone beyond elemen‑ tary school. All the skills required of them are normally acquired through experience at sea. The graduates of govern‑ ment fishery schools rarely allow themselves to be employed on these boats; neither do they become local outfit owners.

For a concrete idea of the income of local fishermen, consider the not uncommon situation in which a lawagan nets a good catch of 1000 boxes of fish in one month. Under the increasingly prevalent system, ten per cent of the night's catch would be sold every morning, and the proceeds divided among the crewmen. At current prices, those 100 boxes of fresh fish might average ten pesos each, thus realizing for the crew ₱1000 over the entire month. Given a crew of 50 men, each one would receive ₱20 in small sums over the month. At the end of the month, the comón, composed of one peso for each of the remaining 900 boxes, plus any incentive pay‑ ments due, would be turned over to the master fisherman by the owner for division by shares among the men. If the comón totaled ₱1000, each share would be worth ₱13.33 (₱100/75 shares), and each man would be paid his appro‑ priate multiple of that amount. Thus, for his 20 to 22 nights' labor, the ordinary fisherman would receive altogether

₱33.33 (₱20 diario and ₱13.33 parte); the master fisherman, with four and a half shares, ₱80.99 (₱20 diario, and ₱60.99 parte). The master fisherman would also receive his commission—in this case a substantial ₱450 (50 centavos per box landed). The earnings of the other more or less specialized crewmen would fall in between.

On the basnigan the figures would work out in a more or less similar manner, the smaller number of shares due the smaller crew being offset by the normally smaller catch of the outfit.

Under the same system and assuming the same catch, the profit of the owner of the outfit would be considerable. Although the 900 boxes he would receive from his boat would shrink to about 600 if the fish were dried, the market value would likely be about ₱20 per box. Thus his gross income would come to about ₱12,000 for the month (600 boxes of dried fish at ₱20 a box). To arrive at his net profit, one would have to deduct approximately ₱2300 for the month's operation of the lawagan; ₱1000 for the labor costs involved in drying the fish and ₱1200 for the necessary salt; ₱1000 for new boxes, which are needed for shipping the dried fish to Manila; ₱1000 for the crewmen's común; and ₱450 for his master fisherman's commission. Altogether the lawagan's owner would pay out ₱7000 and clear a net profit, *limpio*, of ₱5000 (₱12,000 gross income minus ₱7000 necessary expenses).

Thus, while a catch of 1000 boxes would still bring meager returns to the ordinary fisherman (₱33.33 in cash and perhaps another ₱25 in free rice and fish for the period at sea), the owner of the outfit could make a handsome profit. In fact, working under this system, the owner of the lawagan breaks even when his outfit lands only 350-400 boxes of fish in a month; on the basnigan the break-even point is about one half of that figure. While no owner can count on regular catches of 1000 boxes a month, given the current supply of fish, average luck, and no major accidents or unusual expenses, large outfit owners can generally expect to recover their entire investment in two to three years—a rapid return, indeed, on a outfit which with care can be productive for 20 years or more.

To the mathematically intuitive the current ten-per-cent-plus-one-peso-a-box system may appear to be less advantageous to the crew than the older system, which operated by simply deducting operating expenses from the gross value of the catch and then dividing the remainder between the owner and the crew. Taking the same hypothetical situation as that described above, the 1000 boxes of fresh fish at ₱10 each would be worth ₱10,000. Subtracting the ₱2300 operating expenses would leave ₱7700. The crew would have half of that amount, or ₱3850, to divide in their común. Each of the 75 shares would then be worth ₱51.33, or ₱18 more than the income of the ordinary fisherman under the latest system.

However, the matter is complicated by several factors. Traditionally, the owner was often recognized to have a right not only to his half of the gross as financier of the outfit, but also to another sixth of it as the owner of the boat. Sometimes (as still happens among some of the few outfits operating under the old system), the owner of the boat and the financier of the outfit were two different persons. In this case a similar practice in dividing the gross prevailed; half of it went to the latter, a sixth to the former. Thus, the crew often had less than half of the gross to divide.

Furthermore, under the older system, unscrupulous owners could easily pad their operating expenses, and no member of the crew would dare question them. It was considered perfectly legitimate, for instance, to include under the category of "operating expenses" not only the purchase of new equipment, even if it were merely to be held in reserve, but also the personal expenses of the owner, such as his fare to Manila and and hotel and entertainment bills while there on "business."

Finally, any month that the outfit's operating expenses exceeded the value of the catch, the men would receive no shares at all. Indeed, they could go for months with no income beyond the fish they took home with them in the morning. The owner's loss, however, was carried over to the accounting for each subsequent month, with the result that he might eventually recover it. Thus, under the older system, the crew received relatively more only when the catch was particularly large or expenses were limited; with heavy ex-

penses or a small catch, the crew's share of the net profits might dwindle to nothing at all.

The now spreading ten-per-cent-plus-one-peso-per-box system brings the crew less income from big catches, but assures them of some income when times are bad. I know of no one in Estancia who keeps, and gives access to, records sufficiently continuous and accurate to determine which of the two systems, over the long run, favors the owner, and which is more advantageous to the crew. However, the fact that the newer system is usually promoted by the owners probably indicates that they believe it to be to their advantage.

No matter what the system of profit sharing, operating a fishing outfit can be highly profitable to the owner. Nonetheless, the profits needed to meet the continuous operating expenses often rapidly disappear. As mentioned above, lawagan can only operate effectively from Estancia eight or nine months of the year. Unsuccessful trips to Palawan or Masbate in an attempt to keep the outfit going can be very expensive. The owner must also be prepared for an average of two months a year when, because of bad weather or the vagaries of the fish, his L ats will return with practically no catch, night after night. During these periods, his operating expenses will remain relatively constant.

The outfit owner must also constantly contend with the problems of pilferage and private sale of fish from his boats, both at sea and on their arrival in Estancia in the morning. There are many small fish dealers who make a lucrative business of *panting*—going out at night to meet fishing boats at work, or intercepting them early in the morning while on their way home, and buying from them one or two to 50 boxes of fish. The owner may be kept ignorant of the transaction, and the profits may simply be divided among the men at sea.

Usually, these dealers, or *pantingeros*, also purchase the fishermen's diario, as well as small quantities of fish belonging to the men or surreptitiously taken from the outfit's catch. (This is especially a problem on lawagan since there are six separate boats in which fish can be hidden.) The fishermen usually connive with them since, having stayed up

much of the night, they have very little inclination to sit for
several hours in the market selling their fish or share of the
catch, even though this would unquestionably bring them a
somewhat larger income. Even the pantingeros tend to spe-
cialize entirely in buying fish from the outfits and, in turn,
selling them to other men, who will retail them fresh in the
market, or salt and dry them for later, usually wholesale,
marketing.

To counteract this problem and avoid being blandly told
that his outfit simply was not able to catch any fish the
previous night, the owner must either go out with the men
himself, something they usually wish to avoid, or else pro-
vide the master fisherman with a considerable added incen-
tive to discipline the men, prevent or limit such transactions
at sea, and land the boxes of the catch at his anchorage.
This concern is the basis for the master fisherman's extra
commission on all boxes of fish landed.

Nonetheless, despite the continuous precautions taken
by the owners and the occasional firing of crewmen and even
master fishermen, panting remains a lively business for many
of Estancia's smaller entrepreneurs. The rather low income
of the ordinary fisherman in the local outfits no doubt con-
tributes to the prevalence of this practice.

The owner must also keep a close check on loans to his
crewmen. Given their small daily income and their equally
small shares at the end of the month, it is not surprising that
many of the fishermen, especially those with families, are
constantly taking "advances" on their future shares in the
catch. Further, circumstances often demand that the owner
be reasonably liberal in the support of his men and their
families. This is especially true during the sanag, or full-
moon period, when the crewmen have no regular supply of
fish, and during the longer periods when, because of bad
weather or repairs, the outfit is not in operation. They often
have no other sources of income and must be maintained at
subsistence level at least, especially if they have been with
the outfit for some time. While some of this money can
usually be recovered from the subsequent shares of the men,
much of it is often lost for good if "hard times" last beyond

penses or a small catch, the crew's share of the net profits might dwindle to nothing at all.

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a few weeks. It is not uncommon for crewmen to build up a debt of ₱100 or more, then either disappear or become so lazy on board that the owner has no choice but to fire them. Such debts are generally conceded to be uncollectable.

The largarete and other small fishing outfits

On account of their size, lawagan and basnigan are in a class by themselves; all other outfits operating from Estancia are much smaller.[*] One of the most popular of the others is the *largarete*—probably the smallest night-fishing craft capable of regularly catching commercial quantities of fish. Several scores of these boats are operated from Estancia, and they would probably number more than 100 if all those in the surrounding coastal and island barrios were taken into account. Largarete are from 40 to 60 feet long, and have a narrow banca-based hull about three feet wide at the gunwales. They carry bamboo outriggers on both sides and are powered by a variety of small marine or converted truck engines.

Once the largarete is in the fishing grounds, two long bamboo poles are often attached fore and aft. A gill net is then strung from the end of one pole to the end of the other. These nets may range from four to 14 fathoms deep (24 to 84 feet). When the net has been lowered and set directly under the hull, a powerful lamp is lit above the water on one side of the boat. When the light has attracted a substantial number of fish, it is transferred to the other side. The fish that attempt to follow become entangled in the gill net. The light may be passed back and forth several times before the net, with the captured fish, is raised. While the fish are being disentangled from the net, another net is lowered over the side. The procedure is repeated until no more fish can be taken.

[*] The only other outfit operating from Estancia that can compare in size to the basnigan or lawagan is the *cub-cuban*. However, cub-cuban are seen around only during the middle of the open season, when the aguma-a and bulao are most prolific. These boats, most of which originate from the Bantayan Islands, work on the same principle as the purse-seiner, though without the power winch. Cub-cuban were once common in Estancia, but they proved unprofitable for year-round operations and their owners switched to basnigan and lawagan.

It costs about ₱5000 to purchase or build a new largarete:
₱1300 for the boat itself, ₱1500 for the engine, ₱500 each for
at least three nets, and the remainder for various mis-
cellaneous expenses. With a crew of five to seven men, the
largarete entails a monthly operating cost of only a few
hundred pesos. In local practice, operational expenses are
deducted from the total value of the catch, and the remain-
ing net profit is divided evenly between the owner and the
crew. Again, a sharing system is used, with two and a half
shares going to the master fisherman, one and a half to the
engineer, and single shares to each of the ordinary crewmen.

Though the capacity of the largarete is small—20 to 30
boxes of fish is a good night's catch—the little capital required
and the small crew and few skills involved make it a very
popular outfit. Further, fish caught by largarete bring a
higher price than the same fish caught by lawagan or basni-
gan because capture by the largarete's gill net keeps fish
scales intact. Fish caught by ordinary nets necessarily rub
against the net and each other, thus losing some of their
scales. The profitability of largarete is attested to by the
fact that one of Estancia's most intelligent businesswomen
operates ten of them, rather than the larger basnigan or
lawagan, which she could obviously afford. Also, several
basnigan owners have recently been building largarete both
for fishing and to provide themselves with efficient low-cost
transportation.

Another effective and ingenious type of fishing practiced
locally is the *tigbi*. This outfit operates during the day in
shallow coastal waters, preferably in places with sandy bot-
toms. A crew of seven in a small sail- or motorboat searches
for schools of fish, *gatao*, in the shallows. When a school is
spotted—usually *gisao* or *balanak*, mullet (*Mugil dussu-
mieri*), or *bangús*, milkfish (*Chanos chanos* [*forskal*])—four
men go overboard to spread on the bottom a small square net.
Each of the four then stands on one corner of the net. Mean-
while the boat is maneuvered behind the school, and when some
150 feet from it, two more men go overboard and stretch out
between them a "scare line," *taboy*. These lines, usually
over 200 feet long, have pieces of coconut husk attached at
one foot intervals, with a short section of bamboo at the

center which acts as a noise-making waterspout. With this line the two men drive the school of fish toward the net. When the fish are directly over it, the net is lifted out of the water by the four men and the fish are trapped inside it. The whole operation, from sighting the school to placing the catch on board, normally takes from ten to 15 minutes. One man, the *bilinon*, is responsible for provisioning, cooking, and fetching water, as well as for splitting, salting, and drying the catch on mats placed over the outriggers. He stays on board the craft during the whole operation.

Tigbi outfits from Estancia often spend a week or two at a time cruising along the sandy southern shores of Masbate during the southeast monsoon. The tigbi owner usually goes along with his outfit to prevent the crew from selling all or part of the catch before arriving home. Typically, the owner opens credit at a local store, and the crew's expenditures for fuel, rice, cigarettes, salt, and other supplies are charged to that account. After enough fish have been caught—a catch of 8000 to 10,000 pieces is profitable and not unusual—the account is settled. The amount is subtracted from the total value of the fish, and the remainder, the común, is usually divided into 10-1/2 or 11-1/2 shares. The owner has three or four shares, depending on his contract with the crew. Nominally, he receives one share for the boat, one for the net, and one or two for being the organizer and financier of the trip. The master fisherman receives one and a half shares, the rest of the crew, one share each.

Another popular daylight outfit is the *palobog* (from *lobog*, to make a commotion). In Estancia palobog fishing is most commonly practiced in shallow water, though it has deep water variants. For this kind of fishing, a gill net, some six to 12 feet wide and from 60 to 200 feet long, is used. Three men in a banca spread the net, attaching the ends to rocks or points of land. Floats keep the net afloat while small weights on the bottom make it hang straight in the water. The banca is then paddled back and forth in the area enclosed by the net, with one man slamming the water as often and as forcefully as he can with a long pole tipped by a concave rubber or wooden plunger. The blows frighten the fish and, in their haste to escape, some become entangled in

the net. After the banca has passed back and forth several
times, the net is hauled in from one end, and the fish are re-
moved and dropped to the bottom of the boat. The entire
operation may take 20 to 30 minutes, and may be repeated
many times during the day. A single setting of the net may
bring in from one or two to 50 fish, which are likely to be
the same varieties caught by the tigbi. The catch is simply
divided into six shares since there are no significant expenses
in the operation of the palobog. The owner of the boat, net,
and plunger receives three shares; the three fishermen, one
each.

Still another very common style of fishing in Estancia
is the *palopók* (from *lopók*, explosive). In this operation two
men go out in a small banca to search under the water for
schools of the larger species of fish; these are common in
places where the bottom is rocky or coralline, *takot*. When
they find the fish, they drop overboard a large explosive
charge, the *lopók*. They must then wait at least 30 minutes
to allow the sharks in the area to start feeding on the fish
they have killed, for it is only after the sharks have begun to
eat that a diver may safely gather fish; going down before-
hand would make him highly susceptible to attack. When he
finally feels it safe to do so, one man, the *manog-salum* (from
salum, to dive), dives with a short-handled scoop net, *sibut*.
A few dead fish float to the surface; most settle on the
bottom, where the diver gathers them into his net. On the
surface, the man left in the banca receives the net from the
diver, empties it of fish, and returns it to the latter for
subsequent trips. When the diver becomes tired, the man on
the surface replaces him.

Other fishermen engaged in the same activity are often
attracted to the area by the sound of the explosion. They
are free to dive and harvest fish from the bottom. However,
when all the fish have been gathered, the newcomers must
give half of their total catch to the men who set off the
original charge.

Palopók fishing often produces catches of hundreds,
sometimes thousands, of large fish. At five to six fathoms:
bulao, striped mackerel (*Rastrelliger chrysozonus*); *lapu-lapu*,
grouper (various species of the genus *Epinephelus*); and *sulid*,

caesio (various species of the genus *Caesio*). At twelve to 15 fathoms: *momsa*. malabar cavalla (*Caranx malabaricus*); *badlon*, the toothless cavalla (*Gnathanedon speciousus*); *ba-oló*, jack or cavalla (*Caranx melampygas*), and many other species. These fish are immediately brought to "financiers" in Estancia.[8] It is usually more profitable to sell such large and varied species fresh in Iloilo City or Manila. The fish are packed in crushed ice and loaded into large insulated wooden crates; extra ice, to be added enroute, is sent along when the fish are to travel great distances exposed to the sun. If a dealer, however, finds it inconvenient or unprofitable to sell the fish fresh, he can always have them split and dried.

The six types of fishing described here form but a small sample of the variety of techniques commonly employed in Estancia today. While a few of the others require several men working together, most are simply one-man operations employing hooks and lines, hand traps, poisons, spear guns, and push or throw nets. Still others involve merely the gathering of marine life found on tidal flats and rocks or in shallow tidal pools. Almost entirely subsistence operations, they are not sufficiently productive to be a regular influence on the commercial fish market.

Fish Preservation

Once fish have been landed, a variety of processing techniques are employed to preserve them for later, or distant, marketing. Today, fish are usually salted and dried, either whole if they are small, or sliced in half if they are of the larger varieties. The owner of a fishing outfit can substantially increase his profits if he has his own salting vats and drying racks. The few outfit owners in Estancia without these facilities sell their catches on a regular or day-to-day basis to middlemen or others who can handle the necessary processing.

The drying process involves the following steps: the outfit usually anchors near or at the shed, or *kamalig*, which

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[8] These "financiers" are dealers who usually provide a fisherman with cash and credit—often of several hundred pesos—and frequently with the necessary explosives. In return, they can have the catch at a low price.

contains the salting vats, called the *luma-án* (from *la'ma*, salt), belonging to the owner or processor. The fish are brought ashore by men known as *pakyaw*, or piece workers; these men are paid by the case for handling most of the operations between the arrival of the fish in the morning and their reboxing, three days later, for the market. If the fish are of the smaller varieties, e.g., tabagák, hasà-hasà, gurayán, sap-sap, they are directly immersed in salting vats which contain a strong brine solution, *sanao*. Depending on their size, the fish are soaked from three to eight hours.

After the proper time has elapsed, the pakyaw dump the fish on the floor of the kamalig for sorting by size and species. Women, called *manog-bulad* (from *bulád*, to dry in the sun), usually perform the sorting, with the occasional help of their children or other young boys. When the fish have been sorted, they are placed in the large open-mesh canastro and washed in the sea to be rid of excess salt. The pakyaw then carry the baskets to the drying racks, *handayan*, where the manog-bulad take over once again. They spread the fish on split bamboo trays, or *capel*, which measure about two and a half by four feet. Seven or eight trays are needed to carry the contents of one box of fish. If the fish are not of the very smallest species, or physically damaged, they must be neatly spread in rows on the tray to insure uniform drying. If very small or badly damaged, they may simply be scattered evenly on the tray. Drying will normally take about 30 hours, or somewhat less than three full days of sun.

A large catch attracts many prospective manog-bulad; a small one is left to the "regulars," who live in the immediate vicinity of the drying racks. As a result of this flexible labor force, an individual manog-bulad rarely has more than three boxes—21 to 24 trays of fish—to arrange. For her work she receives from the processor four or five centavos for each tray on which the fish are neatly spread, two or three centavos for a tray on which they are scattered. The variations in her wage closely follow the fluctuations in the market price of the fish. For her several hours of labor, the manog-bulad is likely to receive less than the 80 or 90 centavos that is her "ceiling"; and, like the fishermen, she is actually paid at the close of the fishing month.

Some of the larger fish locally available, especially the aguma-a and bulao, are normally split in two, *pakas*, before being salted and dried. The *manog-pakas*, or splitters, are often the wives or neighbors of the pakyaw. They are frequently assisted by their children. Splitting involves completely removing the gills, *hasang*, intestines, *tina-i*, and eggs, *bihod*. It must be done carefully to avoid fouling the fish. Depending on the current price of the fish, the manog-pakas receive between five and 15 centavos per 100 split fish, plus the intestines and eggs. The latter, as a matter of fact, provide the greatest portion of their income, for while gills may be thrown away, the eggs and intestines, cleaned and salted for at least four days, are sold as *ginamós* (*bagoóng* in Tagalog), a highly prized delicacy. Ginamós from the intestines sells for 25 to 30 centavos a San Miguel (beer) bottle; ginamós from the eggs may bring four times that amount.

Once the manog-pakas are finished, the pakyaw gather the split fish, wash them in the sea, and place them in the salting vats for four hours. Then they are turned over to the manog-bulad to be spread on the trays. Since the split fish are large and rapidly arranged on the trays, the manog-bulad are often paid as little as five centavos for three trays finished. Under sunny conditions, the drying of split fish usually takes about 18 hours, or about one and a half days of sun.

Once the fish are spread on the trays, they again become the responsibility of the pakyaw. They must turn the fish every few hours, take them into the owner's bodega at night, bring them back out in the morning, and stay on guard for cloudbursts—rain can greatly lengthen the drying process, spoil the fish, and therefore reduce their market quality and price. When the fish are completely dried, or *uga*, the pakyaw place them in new boxes, which they have put together from prefabricated pieces, and store them in the owner's bodega. Since dried fish when unrefrigerated remain good only for two, three, or at most four weeks, they must be sold as rapidly as possible.

In return for their various labors, pakyaw, who are usually regular with a particular processor, are paid from 50 to 90 centavos for each box of fresh fish they have overseen from the boat to the bodega. Their total income, of course,

varies with the size of the catch or the number of fish being
dried.   They usually estimate their monthly cash income at
about ₱30 to ₱35.   While with a poor catch this may drop
to less than ₱10, in an extraordinarily good month it may go
as high as ₱100.

Aside from full drying, several other relatively small-scale
methods of preserving fish are also practiced. If the fish are
to be consumed locally and need only last a few days, they
may be sold half-dried, or *lamayó*. This is a common practice
with squid as well.   In this case the fish are split in two,
salted for only two hours, and placed in the sun for six hours
more.   If part of a catch landed in the early morning, they
can be processed completely and be ready for sale by mid-
afternoon.   Sometimes whole tuloy are simply packed in salt
and sold in boxes as *binuro*.   Whole aguma-a may be pre-
served as *tinibal* in a brine solution, but this practice is be-
coming increasingly rare nowadays.   Occasionally fish are
smoked, *tinapá;* however, on account of the extra labor in-
volved and the high cost of wood for fuel, this is no longer
a common commercial practice.   Finally, as mentioned above,
fish may be kept in ice in order to be sold fresh in distant
markets.

Fish Marketing

The largest proportion of dried fish that pass through
Estancia is marketed very simply.   The owners of most of
the large outfits consign nearly their entire production to
any of the several large Chinese wholesale fish dealers in
Manila.

Shipments to Manila

Packed in new cases, the fish are sent by steamer, and,
upon being landed at the pier, they are picked up by the
Manila dealers.   It is not unusual, however, for the owner to
discover the price at which he sold his fish only upon receipt
of his payment, with the arrival of a subsequent ship from
Manila.   He may have a general idea of the value of
his shipment, but it is only upon their arrival in Manila that
the actual price of the fish is fixed, on the basis of species,
size, quality, and the current state of the market.

Because of the lack of easy transportation to alternative large-scale markets, and, perhaps still more important, because of outstanding loans from the Manila dealers, most local outfit operators have no choice but to accept the offered price. The continual liquidity which the operation of an outfit demands, along with expenses for new equipment, replacements, and fish processing, often badly drains the cash reserves of the owner. Local banks refuse to accept boats as collateral for loans—boats can disappear too easily—but the Manila wholesalers willingly lend cash on the spot and at "no interest." They merely ask for the assurance that they will receive the outfit's entire catch.

In this way the dealers controlling the Manila and Luzon markets can determine precisely how much they should pay for shipments, and assure themselves of substantial profits. During the open season, when fish are relatively plentiful and prices low, they can increase their gains by keeping the fish in their own cold storage warehouses until prices have risen.[9] Several of Estancia's less careful or unlucky outfit owners are said to be completely in the control of the Manila wholesalers.

The Estancia market

But not all the dried fish go to Manila. From Sunday to Tuesday afternoon every week, jeeps, trucks, and buses from every part of Panay converge on Estancia to purchase fish. A smaller number of buyers arrive all throughout the week. While some local outfit owners and fish dealers have regular *suki* (most favored customer) relationships with particular dealers from other towns, a great deal of independent wholesaling takes place. Large and small quantities of fish find their way from one middleman, *contratista* or *ahente,* to another and finally to visiting dealers. These contratista— some of whom are equipped with capital, either their own

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[9] For many years there has been talk of constructing a government-subsidized cold storage plant in Estancia. Such a plant, if set up, would enable local entrepreneurs to take advantage of price fluctuations and thus break the hold Manila dealers have on them. Up to the present, however, national-level economic and political considerations have prevented this plan from materializing.

or borrowed; others, with only the knowledge of prices asked and prices offered—make small profits from each transaction. The small-scale dealers who buy their fish from the pan-tingeros mentioned above are particularly active at this time. Still other fishermen and dealers from communities all around the Visayan Sea bring their week's catch for sale, often re-turning home with their major provisions for the coming week. Thus, it is not surprising to see 150 to 200 boats of all sizes, types, and origins in Estancia's harbor during market days.

The volume of the fish market is further increased by the frequent practice among some large outfit owners of turn-ing over to relatives or close friends from five to 50 boxes of fish, which, when sold, usually earn for the latter a sub-stantial commission. Although the owners could theoretically handle this business themselves, thereby adding to their own profits, they claim that they feel obliged by local norms to help provide for the livelihood of others—"to help them feed their families." As a result, while the marketing of fish may be lacking in technical efficiency, the income derived from it is more widely spread.

Though on a much smaller scale, the daily marketing of fresh fish in Estancia is also a lively business. In the morning, fresh fish dealers, *lab-aseros* (from *lab-as*, fresh fish), purchase any available quantities of fish, either directly from the outfits or from the pantingeros, for retail sale, *aminudo*. If business is slow, they may dry the fish and sell them as lamayo in the afternoon when half dry, or as uga later on when fully dry. When the quantities of fish avail-able in the morning are large enough, these same dealers may buy—with their own capital, with loans, or on credit—from ten to 40 boxes of fish, hire a jeepney, and go *en viaje*, wholesaling them in any of the towns between Estancia and Roxas City. Though this sort of business is necessarily irregular, profit margins are high enough to yield substantial incomes, in the hundreds of pesos, on good weeks.

The Entrepreneurs

It should be clear by now that Estancia's expanding fishing industry does not benefit everyone equally. The vast

bulk of the migrants swelling the town's population—the men who catch the fish, and the men and women who prepare them for marketing—are poorly paid and live close to mere subsistence levels. Larger incomes and opportunities for wealth only appear in the commercial sector of the industry: through the ownership of outfits, or business in fresh and dried fish and boat supplies. Thanks to the constant demand for fish and the steady, though somewhat diminished, flow of cash in even the slowest months of the year, small amounts of capital, when well managed, can always bring some, and even substantial, income.

Estancia's entrepreneurs, the men and women who have taken advantage of Estancia's physical, geographical, and human resources, have several common characteristics. Most came to Estancia as poor migrants in the 1920s and 1930s, and set up businesses of their own. Almost all started out as very small buy-and-sell dealers; though they usually marketed fish, they also engaged in grain and dry goods transactions. By astutely managing their resources, many, especially the fishing outfit operators, built up stable economic organizations, which now control the livelihood of from 30 to 200 men and their families.[10] Some of today's younger economic leaders are children of these poor migrants.

In sharp contrast to their entrepreneurial outlook is the land orientation of most of the old families of Estancia—those whose roots in the town extend further than 1920. With one or two exceptions, the latter have not been major participants in the rise of the fishing industry since the Second World War. Only a few of their children, most of whom have gone into established professions like teaching and law, still reside in Estancia. Their lands, if not already sold, are frequently poorly developed.

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[10] Collectively, they displaced the Chinese owners and dealers who dominated the initial phases of the industry during the pre-World War II period. Most of those Chinese—or their children—have shifted their operations to southern Masbate and some of the smaller islands in the area. The Chinese still in Estancia have become naturalized Filipino citizens, and while some are still active in the fishing business, they no longer own any outfits and, as dealers, account for only a small proportion of the total volume of fish traded.

The fishing entrepreneurs are clearly the "newcomers," both economically and socially. For them the sea, unlike the land, cannot be owned or fenced; it is an open resource out of which all men can build their fortunes. Their histories, manifesting resourcefulness, luck, and determination, are told like Horatio Alger stories.

The need for other investments

Almost all those owning fishing outfits have, after a few years, diversified their business interests. For although fishing can bring large returns, it is by nature very risky. Realizing this, intelligent operators have quickly invested profits in other, and more stable, concerns. These investments bring their own income, which helps tide ov: the outfit when the fishing is poor. Riceland (especially useful when there is a crew to be fed), is probably the most common form of diversification—though various owners have turned to operating fish ponds, gasoline stations, rural banks, salt beds, lumber yards, coconut plantations, and recently, Estancia's first muscovado sugar mill.

Those who have not diversified their investments have o'ten found their wealth suddenly disappearing. There are several men in Estancia today who were once important commercial outfit owners, but who are now reduced to the role of relatively small buy-and-sell dealers. Along with their failure to spread their investments, the reputed causes of their economic decline are a virtual catalogue of the traditional problems of the nouveau riche: over-elegant houses, alcohol, spendthrift children, an undue proclivity to the fair sex, and gambling. Invariably, these entailed lavish expenditures and diminishing supervision over the details of the business. A few months of "bad luck," and they lost their boats to creditors—perhaps even found themselves bankrupt.

Aside from the very general tendency to spend rapidly and excessively, gambling is probably the most common and effective way of losing one's income. Gambling is extremely popular in Estancia; perhaps because night fishing leaves men free most of the day, or perhaps because gambling and fishing are inherently similar activities. Luck rules both, and both can bring quick riches and empty pockets in rapid succession.

Both are also constantly available sources of income. If one loses, one can always start over again, with the same chances of success as before.[11]

Motivations of Migrants

Despite the existence of numerous potential role models—the successful entrepreneurs who have demonstrated that it is possible to rise to the top even when one starts with the smallest capital—few fishermen today seem to be capable of or interested in following their example. It is even quite rare for master fishermen to conserve their more substantial earnings and successfully invest in fish marketing, or set up an outfit of their own. In the few cases that they have done so, they have almost invariably depended on major financial aid and advice from one of the already well-established entrepreneurs.

The vast majority of the migrants to Estancia are apparently not coming with plans or expectations of "striking it rich." Though some individuals are obviously making very sizable incomes from the fishing industry, its main attraction seems to be the promise of some reasonably steady income, albeit on a very low level. It appears that the migrants, long accustomed to mere subsistence living, ask little more from Estancia's fishing industry. The people who become wealthy are those who recognize the profitable gap between the low wages acceptable to the labor force and the relatively high value of the marketed fish.

And in at least one respect—the continuity of their income—Estancia's fishermen consider themselves more for-

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[11] For the outfit owners and dealers the most common forms of gambling are mahjong and cockfighting. Thousands of pesos may change hands in one session of these games. For the ordinary fisherman, on the other hand, the favorites are the "daily double" (the "numbers"), *pula-puti*, and other betting games. In staking his small share in the *común* or his diminutive *diario* on them, the most he can lose is a few pesos, which the next nights' fishing will probably put back in his pocket. If, on the other hand, he wins, he can drink freely in the company of his friends and relax at home at night until the money runs out. There have been a few cases where fishermen used their gambling winnings as capital for buy-and-sell operations. Almost invariably, however, they did not prove adept at such business, soon lost their capital, and returned to the sea.

tunate than local farmers. For although a farmer's total in-
come may be larger, he must wait until the harvest for a
return on his labor. Under local conditions, farmers are
usually forced to borrow money several m(...)ths before harvest
at extremely high interest rates—anywhere between 100 and
200 per cent a year. In contrast, the fisherman always has
some cash on hand since he receives a diario, no matter how
small, and has a share in the monthly común of his outfit.
And when he must borrow money, he can always rely on
"advances" without interest on his forthcoming share. Though
poor, he can survive and avoid going irreparably into debt.

The desire for a subsistence livelihood seems to be the
sufficient and terminal motivation of the vast majority
of local fishermen. Despite lessons in successful entre-
preneurship all around them, and despite their personal
involvement in a highly commercial industry demanding
a relatively complex division of labor, the basic orientation of
the men on the boats, and the men and women who prepare
the fish for marketing, is still that of subsistence farmers and
fishermen. Only a very few have recognized the great econom-
ic opportunities available to them. For most of Estancia's
fishermen, it is not a dream of economic empire, not even
the vision of a slightly richer life, but merely the need for
some daily rice that draws them to their labors.

Cultural Differences in the Use of Guilt and Shame in Child Rearing: a review of research on the Philippines and other non-Western societies*

RACHEL T. HARE

The development of autonomy and of independence from authority is a theme in American child rearing that has been studied considerably in recent years (Hoffman and Hoffman 1964; Sears, Maccoby, and Levin 1957). Likewise, psychologists and anthropologists have paid increasing attention to the subject of child rearing in non-Western as well as nonindustrialized societies. This paper is an attempt to present a comprehensive survey of the latter research.

The Problem of Social Control

According to Spiro (1961a), the problem of child training or socialization is essentially that of social control.

> Since the actual range of behavioral variability within the species is much broader than the permitted range of variability within any society of the species—since, that is, humans are capable of doing many things in addition to those they are expected to do—it is obvious that for human societies it is not sufficient that social roles be inherited, shared, and learned; they must also be *prescribed* (Spiro 1961a:474).

In addition, certain ways of behaving are proscribed. As Spiro points out, there are drives or personal desires that can find no sanctioned means of gratification because they are in themselves culturally disapproved.

Cultures vary in both their encouragement of certain types of behavior and in their disapproval of others. This is almost universally true, Spiro writes, with regard to such interpersonal behaviors as hostility and dependency. This is not surprising, since the extinction of a society could very well be brought about if its adult members were to assume attitudes of childhood dependency, or, on the other hand, manifest uncontrolled aggression against the in-group. However, cultures do vary in their emphasis on interdependency as opposed to independence.

Research on child rearing in non-Western societies will be examined with Spiro's distinction between norm-oriented control and sanction-oriented control serving as a guideline. Specifically, the question will be asked: Within a certain culture, are techniques for the control of dependency (if the culture stresses dependency) or for training for independence (if it emphasizes independence) norm-oriented or sanction-oriented?

In characterizing the two types of social control more fully, Spiro explains that the former—sanction-oriented control—consists of social sanctions; that is, socially administered punishments that force the members of a society to perform prescribed activities and suppress or inhibit proscribed ones. These sanctions may either be physical in nature or, like public censure, emotional. They are administered either by peers or by a constituted authority, whether human or supernatural.

However, social sanctions may not be sufficient to ensure compliance with all cultural norms; many activities occur at times when authority figures are not present. Then, the second technique for social control, namely, norm-oriented control, may be developed through the acceptance and internalization of a culture's norms of behavior, that is, through the formation of a conscience or superego.

While Spiro contends that social sanctions serve as anticipated rewards and punishments, he suggests that the nature of norm internalization has not been clearly understood.

> There has been a great deal of discussion concerning the internalization of norms. Some writers, following Ruth Benedict, have suggested that norm-internalization is a phenomenon re-

stricted to certain types of societies and absent from others. Cultures which give rise to norm-internalization are termed "guilt-cultures"... Those which do not produce norm-internalization are termed "shame-cultures," for the members of the society conform to cultural norms only when their fellows are present to shame them (Spiro 1961b:117).[1]

The Field of Psychological Anthropology

The area of anthropology called culture and personality deals with human behavior primarily in terms of the inter-relationship between the individual and his society.

How the two disciplines of psychology and anthropology complement each other is put aptly by Campbell:

> Anthropological evidence has been, and can continue to be, of invaluable service as a crucible in which to put to more rigorous test psychology's tentative theories, enabling one to edit them and select among alternatives in ways which laboratory experiments and correlational studies within our own culture might never make possible (Campbell 1961:334).

Similarly, Romney and D'Andrade write that "cultural differences serve primarily as sources of variability that permit testing of psychological theories in broader contexts than otherwise possible" (Romney and D'Andrade 1964:4).[2]

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[1] The distinction made by Ruth Benedict (see Lynd 1958:21) is that guilt represents the failure to live up to one's own picture of himself based on norms internalized from parental values; shame, the reaction to criticism by others.

[2] Romney and D'Andrade (1964) suggest an analogy for contrasting the methodological approaches of psychologists and ethnographers, viewed as if they were observing a chess match. The anthropologist feels he can learn the "code" better by being a participant observer. He would not try to force the players to behave in unusual ways, since the players might decide that this was some new game and abandon the effort of trying to utilize and explain the original code. The ethnographer would distrust his informants because they would leave out things. He would rely on interpretations and corrections made during the game. The psychologist would be more concerned with antecedent and consequent events. He would carry out a test

Anthropology is largely descriptive in approach: it exam ines those characteristics of the individual's behavior that he shares with other members of his culture. The psycholog ical approach, on the other hand, is geared to arriving at relationships between events which are not specific to cultures but general across populations. A synthesis of these two ap proaches should prevent one from assuming that a particular trait, when found in different cultures, has a similar motiva tion in all; for instance, that overt peaceableness is always motivated by the absence of hostility. Factor analysis of the same tests applied to different cultures often yields different factors. An instance of this was the factor analysis of the standardized interviews on reported socializ .ion practices in six cultures; it revealed seven different .actors, only three of which are much like those found in American samples (Triandis and Lambert 1961a).

The adoption by some investigators like Whiting and Child (1953) of an orientation combining psychoanalytic and learning theory is evidence of the influence of the clinical sciences on culture and personality research. Though not as influential as in the past, psychoanalytic theory is still im portant for most workers in the field.

> Some form of psychoanalytic theory (usually not in its most extreme, orthodox form) is still the most widely employed adjunct to culture and personality research although the utility of the theory for cross-cultural research has been questioned at certain points, for example, con cerning the universal existence of an Oedipus complex. However, with regard to defense mechanisms, the importance of childhood in per sonality formation, the over-determined nature of behavior, the motivated nature of dreams, and other subjects, psychoanalytic theory has been confidently and on the whole successfully real ized (Honigmann 1961:103).

Another development which reflects the interdisciplinary link between anthropological research and psychology is the

in a simpler controlled situation which he contrived; Vogt (1965) feels that if the ethnographer understands the model and rules of a cul ture, then he has mastered the codes necessai for behaving appro priately in a variety of situations in that culture.

increasing focus on those personality variables that enable societies to function and change, as well as on the means taken to ensure cultural conformity (social control mechanisms). Kaplan (1961), for instance, sees the conformity problem as central to research in the field, and as related in turn to recent developments in the psychoanalytic conception of the autonomy of the ego (Hartmann 1958).

Indeed, several investigators (Hsu 1961; LeVine 1963) have urged that their area of study be termed psychological anthropology. They feel that this may be the only term that can satisfactorily describe cross-cultural studies th t encompass cognition, biological bases of behavior, normal and deviant personality structures, and the relation between personality and social structure. These studies are concerned with large numbers of individuals who are normal and functioning members of their societies. The former use of the so-called modal personality, or of that which Kardiner calls "basic personality," dealt with ideal types and not with constellations of traits most frequently (modally) appearing together in a community. Contemporary workers like Wallace have sampled deliberately and their work deals with true modal types.

The interdisciplinary connection of anthropological work to psychology has been greatly facilitated by psychologists' expanding research on non-Western societies.

Meta-method in Cross-cultural Research

In considering the different reasons for using a given re-earch technique in the study of diverse cultures, Strodtbeck (1964) mentions four approaches that are encountered with varying frequency in the literature. The first approach, type I, involves the consideration of culture as an experimental treatment for individual subjects; the second, type II, is the differential incidence survey; the third, type III, deals with culture as a locus for the development of a new category of experience; the fourth, type IV, is the comparative content analysis of ethnographies.

The first approach, considering culture as an experimental treatment for individual subjects, is usually employed when the investigator wishes to examine the universality of some phenomena such as adolescent trauma or visual acuity

beyond the confines of the laboratory or even his own society. Studies such as Rabin's illustrate this approach.

> We regarded Kibbutz society as a ready-made "laboratory" in which some of our ideas about the relationship of early childhood experience and later personality development may be tested. In order to perform the "experiment" adequately *controls* must be provided, i.e., subjects who live under conditions of the traditional family structure. Thus, our *independent variable*, the differences in child rearing and child-adult interaction, is defined by two different groups: Kibbutz and non-Kibbutz children. The *dependent variable*, of course, consists of the personality characteristics as elicited by means of our measures (Rabin 1965:67; see also Luria, Goldwasser, and Goldwasser 1963).

Type II, the differential incidence survey, aims at formulating hypotheses that can be further explored. It is the technique most often used in the study of mental disease. Included under this type, also, are opinion surveys, studies of consensus, and questionnaire studies dealing with rates of response in one's areas of interest.

The third approach, which deals with culture as a locus for the development of a new category of experience, involves an attempt to apply to many cultures those categories discovered in one culture. This approach is usually adopted in linguistics, where the goal is to first describe data according to their inherent contrasts and then communicate them in a way that leads to new modes of conceptualization and formalization. It has similarities to the ideographic approach employed in psychology.

Type IV is the comparative content analysis of ethnographies. It frequently makes use of the Human Relations Area Files. The descriptive study is the basis for types III and IV and the approach most commonly used in psychological anthropology. It is not limited, however, to description for, as Strodtbeck points out, "The proper scope of the cross-cultural method is not simply testing hypotheses, but generating new hypotheses" (1964:228).

Comparative content analysis of ethnographies

Since they provide the broadest view for considering the generality of hypotheses on social control, those studies on child socialization and training for independence employing type IV, the comparative content analysis of ethnographies, shall be examined initially.

Socialization as economically functional. In a study of 104 societies, Barry, Child, and Bacon (1959) found that the direction or intent of socialization is significantly related to the type of subsistence economy. Societies with a high accumulation of food resources stress responsibility and obedience more than those with a lower accumulation. The latter, in turn, exert greater pressure toward achievement, self-reliance, and independence. These findings, which suggest a functional relationship between child training and other cultural patterns, are in contrast to the view held by B. Whiting (Minturn and Lambert 1964:292) that child training practices result mainly from a series of irrelevant considerations on the part of parents. Barry, Child, and Bacon ask,

> Why does a particular society select child training practices which will tend to produce this particular kind of typical personality? Is it because this kind of typical personality is functional for the adult life of the society, and the training methods which will produce it are thus also functional? By a variety of routes, then, the student of child training is led to inquire into the relation of child training to the basic patterns of social life—to those aspects of culture, whatever they may be, which set the scene for the rest of the culture (Barry, Child, and Bacon 1959:51).

Father identification and conscience development. In an analysis of 48 preliterate societies, Bacon, Child, and Barry (1963) reported that limited opportunity for the young boy to identify with the father is significantly associated with a high incidence of theft and personal crime. While theft is negatively correlated with parents' indulgence toward their children, it is positively correlated with the extent to which the child is punished for his failure to perform in the following: responsibility or duty training, self-reliance training, obedience training, and achievement training.

Related to this finding is Mischel's (1961) conclusion, arrived at in an experiment involving two subcultures in the West Indies, that a significant relationship exists between father absence and the young boy's inability to delay gratification.

The conclusions of these two studies lead us to speculate that father identification and conscience development are minimal in those cultures where there is punishment and anxiety about punishment for failure to respond in the socialization areas dealing with self-reliance and duty. Noteworthy is Mischel's conjecture that father absence hinders the formation of trust behavior as well as the development of autonomy in the child.

Frustration and aggression in primitive societies. In a study of the sources of frustration and targets of aggression in 60 primitive societies, Triandis and Lambert (1961b), adopting Rosenzweig's personality categories, classified groups as either extrapunitive, intrapunitive, or impunitive. Results showed that when crop or hunting failure is attributed to an extrapunitive source, primitive societies engage in extrapunitive aggression. This behavior is directed toward gods and spirits rather than other groups. Their analysis leaves unanswered, however, the question why some societies are extrapunitive and others are intrapunitive or impunitive which would enable us to relate these culture categories to norms and sanctions in child socialization.

Belief systems and socialization. Lambert, Triandis, and Wolf (1959) also employed the comparison of ethnographies approach in studying the supernatural belief systems of 62 societies. They found that societies believing in aggressive supernaturals are significantly more punitive and stern in treating infants than those that believe in benevolent deities. There is evidence that societies of the former type have fewer agents of socialization, protect the child less from environmental discomforts, and pay less heed to the child's needs than societies of the la   type.

Accompanying the tendency to regard t. ir supernaturals as "capricious," societies believing in aggressive supernaturals frequently have rigid systems of rewarding the child for self-reliance and independence and punishing him for not living up to these norms. The authors offer the following explanation for these societies:

> The frequent hurt and pain in infancy in so-
> cieties with aggressive deities causes anxiety in
> the child because of conflicting anticipations of
> hurt and nurture. His conflict is reduced by
> conception of the deity as aggressive, and this
> is compatible with human anticipations of hurt.
> Parents' anxiety is reduced by following prac-
> tices that reinforce independence and self-reliant
> behavior in the child and prepare him for the
> hurtful world (Lambert, Triandis, and Wolf
> 1959:163).

In societies with benevolent deities, on the other hand, considerable reward is used in child training. In turn, according to investigators, the child identifies with the deities and tries to assimilate their attributes. In those societies believing in aggressive supernaturals, social control is maintained by instilling fear of external agents in the individual, thus giving rise to a shame-oriented system; in those having benevolent supernaturals, the strength of identification leads to the internalization of norms, that is, to conscience develop-ment.

Parents' sexual behavior and child training. The asso-ciation of male initiation with close mother-son sleeping ar-rangements and the postnatal taboo on the mother's sexual activities has been explained by Whiting and Child in Freudian terms. Young (1962) disputes their conclusions by claiming that the arrangements for child rearing derive in reality from the father's absence in polygynous families. He further adds that the postnatal taboo is actually instituted to protect wives from too frequent pregnancies. His finding is in line with B. Whiting's observation. mentioned above, that patterns of child raising are but by-products of apparently irrelevant considerations on the part of parents. Young also suggests that initiation is aimed at emphasizing the male sex role in societies characterized by strong male solidarity.

Supporting Young's findings is the proposal of Field (1960). who studied Ashanti society. that the African child's resentment of the mother's relations with the father is engen-dered not by her sleeping with him but by her pampering him with the best food.

Dependency as multifactorial. Whiting and Child (1953) have suggested that cultural norms do not differ with respect to permissiveness in general but with respect to permissiveness

for specific areas, such as permissiveness for sexual behavior
or permissiveness for dependent behavior.   Prothro (1960)
disputed this, however, after carrying out a factor analysis
on data from 22 of the cultures studied by Whiting and Child.
He concluded that dependency is not unifactorial but multi-
factorial.   The factors in dependency that he found are the
following: "orality-sexuality," which indicates the indulgence
of oral needs, combined with nonpermissiveness toward in-
fantile sexuality, or the converse; "independence-anality,"
which reflects whether toilet training is early and independence
training late, or vice versa; "aggression-hypochondria," which
reflects whether there is suppression of aggression, simul-
taneous with high usage of therapies for illness, or vice
versa.   Prothro asks whether the first factor can be explained
more simply in terms of conscious motives of parents; the
second, in terms of ecological variables; and the third, in
terms of the concerns of ethnographers in the field.

Problems in the use of the Human Relations Area Files

In the comparative content analysis of ethnographies a
question is often raised: How valid are cross-cultural meth-
ods employing the Human Relations Area Files?   Mead
points out that the difficulty with using these files is that
"tabulations are selected in terms of mere availability of data,
in which details, moreover, have been torn from the context
of their descriptive setting" (Mead 1963:187).   In other
words, those making comparisons often ignore the fact that
while a type of activity may be universal, it always occurs
in a specific context, and the ethnography is already an ab-
straction from the culture.   In quantifying, researchers using
the method of ethnographic comparison cannot attend to the
differences existing among cultures; often they also fail to
consider the care with which materials are collected.

Socialization and Enculturation.   Mead takes Herskov-
its' observations on the Ashanti and Dahomeans as a case
in point.   The same practices characterize infant care among
the Ashanti and Dahomeans: long nursing, intimate and pro-
tective bodily contact, praise for success in walking and talk-
ing, and punishment for failure.   Yet the personality of the
adult Ashanti is strikingly different from that of the adult
Dahomean.   They differ especially with regard to competitive-

ness for prestige and power, and harshness or lack of it in interpersonal relationships. The problem, Mead concludes, is not that personality does not result from child training, but that the distinction is not made between socialization and enculturation. According to her, enculturation refers to learning as it takes place in a specific culture, while socialization refers to learning as a universal process. Mead sees socialization as a species-wide process in which the acquisition of habits common to humans is almost "automatic." Like Mead, Clark and Gibbs also feel that "if socialization and social control are both used to refer to enculturation, the result is conceptual redundancy" (1965:398).

Recent analyses in the field of psychological anthropology (Fischer 1965; Honigmann and Preston 1964) indicate that the direction taken by B. Whiting (1963) in *Six Cultures* and by Cohen (1961) in his casebook, *Social Structure and Personality*, has contributed much to solving the problems inherent in the comparative analysis of ethnographies strategy.

Questionnaire studies and rates of incidence

The studies in Whiting's *Six Cultures* may be considered as a link between type IV, ethnographic description, and type II, questionnaire studies, since they are not limited to the analysis of questionnaire data but also provide ethnographic descriptions of the cultures studied. On the other hand, Minturn and Lambert's (1964) analysis of the questionnaires employed by Whiting falls properly within the type II category.

Shame and guilt in Whiting's Six Cultures. The societies studied by Whiting are the Gusii of Kenya, Rajputs of Khalapur in India, Okinawans, Mixtecans of Mexico, Ilocanos of the Philippines, and New Englanders of the United States.

It appears that the use of shame in controlling behavior is most common among the Ilocanos and Rajputs. In these societies extended families provide many caretaking agents, and there is less internalization of parental standards through identification. In addition, these societies are ones where dependency on the group is encouraged, and independence is a source of irritation.

On the other hand, among New Englanders, guilt has
the major influence in social control. The nuclear family in
New England culture leads to an identification of the child
with the parents greater than that found in the other five cul-
tures. Independence training, introduced early, is set up as the
ideal; this must not be taken to mean, however, that children
in the other cultures are not expected to be responsible and
to carry out the duties assigned to them.

By factor analyzing Whiting's questionnaires and in-
terviews, Minturn and Lambert (1964) were able to com-
pare maternal behavior in the six cultures. Maternal warmth,
which would encourage the child to identify himself with the
mother and internalize norms of behavior, is least apparent
among the courtyard-dwelling Mixtecans and Rajputs, who
curb emotional expressiveness in public.

The proportion of time spent in child care is greatest
among the New Englanders and the Gusii. In both of these
cultures the mother has but a few relatives assisting her in
caring for the child. This close contact between mother and
child, however, may not always be of a warm, supporting na-
ture, since maternal instability is found to be most common
in those societies where grandparents do not assist in the
socialization of children. Minturn and Lambert state that
pressures on the child spring from pressures on the parents,
such as those resulting from household composition, size of
family, and work load. They emphasize that in studying
socialization, one should consider the following: the mother's
role in the family and community, the father's role, and the
family's relations with neighbors and kin. Thus they support
Whiting's view that

> child training practices are based on conditions
> in the natural and social environment that make
> them necessary for survival. They arise from
> necessities that do not pertain to children and
> are rationalized and justified by a structure of
> beliefs and values designed to support them.
> Therefore, the practices precede and necessitate
> the beliefs (Minturn and Lambert 1964:292).

Socialization in the Philippines. Another type II study
is that of Guthrie and Jacobs (1966) on child rearing in the
Philippines. Based on interviews with the mothers of first-

grade Filipino children, the study was designed to provide data that could be compared to those of Sears, Maccoby, and Levin (1957).

According to Guthrie and Jacobs, Filipinos emphasize politeness, humility, and concern for others' feelings in child training. "The Philippine ideal is not self-sufficiency and independence, but rather family-sufficiency and a refined sense of reciprocity" (Guthrie and Jacobs 1966:85). Filipino children learn that little acts of dependence please rather than irritate their elders. The mother interprets the child's seeking help as a mark of attachment, and she gives help even when it is not asked for. In addition, "the fact that the Filipino is rarely if ever alone probably makes him look dependent. Actually he has a low tolerance for solitude" (Guthrie and Jacobs 1966:99).

Obedience is expected of the Filipino child, but not immediate obedience. If parents and older siblings punish the child, it is because they feel that they know what is best for him; moreover, they feel that punishment is called for because the child's offense manifests a lack of faith in or respect for elders.

The child's behavior is also modified by a sanctioned pattern of insecurity, or *hiyá*, by teasing,[3] and by a world of supernatural creatures. The most outstanding attribute of a well-raised Filipino child is hiyá. Having no exact counterpart in American culture, hiyá can best be described as a learned pattern of feelings of inferiority and anxiety reactions which may arise in certain interpersonal situations.

> Children are trained and expected to have a capacity for painful self-conscious inferiority feelings. They are expected to be embarrassed when they make mistakes. Criticism by others is misery (Guthrie 1964:8).

By the age of four, children begin to exhibit shyness and alertness to the feelings of others. By six, they are considered to have reached the age of reason, and at this age the child begins to be subjected to extended advice and harangues aimed at ensuring that he will think and act in the proper manner. At

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[3] See also Brennan 1952:264-285.

the same time, the child is impressed with the notion that he has an everlasting debt of gratitude to the mother who bore him.

With regard to norm internalization, superego formation among Filipinos is probably different from that among Americans. The reason for this is that the extent to which the mother dominates socialization is different in the two cultures. The Filipino's internalization of norms is probably modified to suit the expectations not only of his mother but also of other people, and to shift when these expectations shift.

Other studies on the Filipino personality point out that the most important structural aspect of Filipino society is the intense loyalty felt by the individual toward his kin and peer groups (Hollnsteiner 1965; Stoodley 1957). "Filipino society curbs deviance by placing little value or giving downright disapproval to certain norms of independent behavior" (Hollnsteiner 1965:25). It appears that the obedience, respect, and humility expected by the mother from her child in sanction-oriented Filipino society leave little opportunity for the child to develop an assertive personality.

Socialization in a Puerto Rican village. The Puerto Rican village studies b·; Landy (1959), whose methods included interviewing as well as observation and doll play, reveal that because of low superego development in childhood, self-blame and guilt among Vallecanese adults are rare. Parents and other elders demand unquestioning obedience from children, and punish them severely for offenses. Punishment is not consistently administered, however, and this encourages the child to transgress his elders' will whenever he feels he can get away with it. Praise is almost never given since Vallecanese think that, like rewards, it will spoil the child and encourage disrespect toward adults. As in other shaming societies, ridicule is a common method of control. The child assimilates a suspicious view of other people and his surroundings.

> Threats of danger from the environment are frequent and include supernatural and societal disapproval, death, castration, desertion, kidnapping, isolation, illness, and injury. The child

> thus learns to trust few people or situations out-
> side the family (Landy 1959:235).

Mothers encourage dependency, preferring their children
to be close to them; they become annoyed, however, if the lat-
ter "cling" excessively to them. There are few incentives for in-
dependent success or achievement in the culture. Landy points
out that "doing well" in school implies getting along well with
others and behaving, rather than studying hard.

> An ever-recurrent theme in Vallecanese socializa-
> tion is dependency, which begins at birth and is
> nurtured and enhanced deliberately by adults
> toward children, and especially by women toward
> boys and men which seems to continue and mark
> Vallecanese behavior throughout life" (Landy
> 1959:245).

Since little affection or warmth is shown toward chil-
dren, parental values are not internalized. Landy reports that
Vallecanese children have fewer guilt reactions and lower su-
perego development than a comparable sample of American
children in a New England community.

Social control among the Yoruba. Izzett (1955) studied
the fears and anxieties of delinquent Yoruba children by inter-
viewing delinquent boys and girls between six and 16 years
of age in the Lagos Juvenile Court in Nigeria. In general, her
findings accord with those of B. LeVine (1962), who studied
memories Yoruba students had of childhood rewards and
punishments.

The greatest fear of the Yoruba child is the witchcraft of
his father's other wives; he especially fears being poisoned by
them. Young children also have a great fear of physical punish-
ment, and many of them run away from home to avoid being
beaten by their elders. Social control of the child through
strict sanctions is clearly dominant in Yoruba society, where
the adult can think of no other way of judging a delinquent
child except by assuming that as a parent, he has not been
severe enough in disciplining the child (Delano [undated];
Kline 1965). Unlike Filipinos, Yoruba parents do not employ
punishments of a verbal nature, like shaming a child in public.
but severe physical ones. Among these punishments are the fol-
lowing: holding the child's hands in the fire, rubbing pepper
into his eyes, cutting his hands with a razor and rubbing pep-

per into the cuts, tying him hand and foot and caning him, ty-
ing him to the rafters of the house and leaving him there. Yoru-
ba children develop little fear of state authorities such as the
police since they are not so much outlaws from society as out-
laws from the family. Controls are exercised through the fa-
mily. and guilt among the Yoruba is not evident.

Culture as an experimental treatment for individual subjects

Some experimental approaches to the problem of discover-
ing the nature of social controls in non-Western societies can
be classified as type I strategies; that is, strategies that involve
the use of culture as an experimental treatment for individual
subjects.

*Conscience development among Samoans, American Cau-
casians, and three communities in Hawaii.* Grinder and Mc-
Michael (1963) considered cultural influences on conscience
development in the following terms:

> Shame cultures stress external agents who arouse
> objective fear. Guilt cultures emphasize self-
> control in the face of temptation and self-initiated
> responsibility for one's actions if transgressions
> should occur. Individuals would be expected to
> develop weak consciences in shame oriented cul-
> tures and strong consiences in guilt oriented cul-
> tures (Grinder and McMichael 1963:503).

With these assumptions serving as guidelines, they examined
guilt and resistance to temptation among Samoans and American
Caucasians. They expected Samoans to have weak consciences
because ethnographic reports indicated that Samoans depend
entirely on external sanctions; that is, parents living in extend-
ed families delegate disciplinary roles to the child's older sib-
blings and employ age-graded socialization sanctions. Amer-
icans, on the other hand, were expected to adhere to inter-
nalized parental standards.

In their experiment, Grinder and M Michael used an ap-
paratus resembling a shooting gallery; it enabled the subjects
(15 American Caucasian and 19 Samoan children) to report their
own scores, the highest of which merited a prize. The results
revealed the Samoan children to be significantly less resistant
to temptation in the shooting situations and on the projective

measures. However, the mean scores indicated that the Samoans had moderately strong dispositions toward guilt and possessed certain rudimentarily internalized aspects of con-science. Grinder and McMichael concluded that Samoans are not so free from the effects of conscience as Mead (1953) implied.

One drawback of the study, however, is that it was so designed that guilt would be inferred from negative results, that is, from the absence of cheating in the reporting of scores. This leaves the results open to alternative explanations.

Using projective stories, McMichael and Grinder (1966) also compared 137 children, ranging in age from 12 to 13, drawn from three communities in Hawaii: Japanese, Hawaiian, and Caucasian. The results support those of the previous experiment: the less children are exposed to American culture, the less they adhere to American standards of conduct and develop a guilt orientation.

Guilt and personality inadequacy among Vietnamese children. Leichty (196ა) studied self-concepts and attitudes toward the family among Vietnamese and American children. The subjects were 60 fourth-grade American children in semi-rural Michigan and 47 Vietnamese children who, though also in the fourth grade, had a wider age span.

She discovered that Vietnamese children experience guilt in terms of personality inadequacy affecting the family, whereas American children feel guilt because they fail to attain a personal goal. She concluded that in Vietnam parental-familial approval is the disciplinary guide; in the United States, on the other hand, children seem to have a role relation with their parents that is less clear than that of the Vietnamese, and they have more concerns revolving around themselves.

Leichty suggests that due to their ability to express negative feelings toward authority, American children can separate themselves psychologically from their parents and move toward independence. On the other hand, the Vietnamese emphasis on behavior that would maintain the family unit leads to the development of a strong superego, highly internalized guilt, and unquestioning acceptance of a single authority.

Child training among the Chinese. Some insights into Chinese child-training practices were obtained by Scofield and

Sun Chin-Wan (1960) from a study involving 40 Chinese college students in the United States. The subjects were asked to write about child-training practices in their own families in five areas of behavior: oral, anal, sexual, dependency, and aggression. The descriptions, which were found to be similar, were rated as more or less severe than child-training practices in the United States with respect to the following: initial indulgence, age of training, and severity of training. The results showed that Chinese childhood training is equal to, if not more severe, than American child training in all areas except anal training.

The subjects also took Cattell's 16 PF personality test, and it revealed that the subjects were significantly more withdrawn, suspicious, shy, emotionally immature sensitive, and introverted than Americans normally would be. As expected, due to lack of severity in anal training, no significant differences were found with regard to compulsiveness, rigidity of control, or sociability.

Severity of child training in China appears to interfere with identification with parents and internalization of their standards, and leads to a greater sensitivity to, as well as dependence on, external control. Corroborating this conjecture is Huang's (1963) report on deviant behavior among children in Communist China. Huang notes that sanctions such as shame are used widely; she claims that parents pressure the child into admitting transgressions by telling him that such acts shame them and, as a consequence, will force them to apologize publicly for him. Huang also observes that public criticism and public ostracism are employed even in the classroom; the teacher presents the naughty child with a white flag, the good one with a red flag. A group rather than an individual approach is used for control as well as for achievement; a good example of this is the practice of organizing students to check on each other's work during vacations.

Socialization in Japan. Benedict's original dichotomy between a shame-oriented culture and a guilt-oriented culture arose from her observations on social control in Japan, which has a shame-oriented culture. Although the literature on Japanese socialization practices is too extensive to be adequately

covered here, Goodman's (1958) comparison of American and Japanese children in terms of social concepts and attitudes will be cited as representative.

By analyzing essays written by Japanese and American children between five and 12 years of age belonging to the urban middle class, she found that, unlike Americans, Japanese avoid individualizing people. They rarely use the first person pronoun ("I") and tend to employ status labels instead of personal names. Japanese children view themselves not as autonomous but with respect to their duties and obligations to others. While self-orientation increases with age for American children, it decreases for Japanese children. The wide network of external controls for the Japanese child takes the place of internal controls for the independence-oriented American child.

Dependency relations among Mexicans in Guadalajara. McGinn, Harburg, and Ginsburg (1965) studied dependency relations of Mexican and American children with their parents as well as their affiliative behavior in adulthood in Guadalajara, Mexico, and Michigan. The results of their study indicate that Mexican parents are more secure in their role than American parents; that is, they are less child-centered, and, while stern and severe, are also closer to their children and more understanding than parents of the American sample.

Since the demands of the parents are based on personal standards of "right" and "wrong" rather than on fixed rules, the child in Guadalajara can only judge himself as acting correctly if he complies with parental wishes, and wrongly if he does not. The child's self-critical response is intense, and the authors feel that it contributes greatly to making the child dependency-oriented.

The more dependent he is, the more the Mexican child tends to view his parents as models; this appears to differ from the dependency orientation of Filipino and Indian children, to whom many models are available. By combining affection or nurturance with intermittent rewards for compliance, and inflicting punishment for disobedience, Guadalajara parents train their children to seek and maintain positive relations with them, much as in an operant conditioning procedure.

Descriptive ethnographies

General theory being inductive before it is deductive, the descriptive study is important in that it provides the basis for type III and type IV approaches. Two recent studies of such a nature point up the difference between sanction- or shame-oriented social control and norm- or guilt-oriented social control.

Shame and guilt among the Eskimo and Navaho. In one, Eisenman (1965) reviews the "scapegoating" techniques of Navaho and Eskimo cultures in a way that fits into Spiro's (1961a) model. The Navaho is essentially a shame culture, that is, the individual feels bad if he is caught doing something that the group disapproves of. It is the social reaction of the group that determines whether or not the individual's behavior is deviant.[1] The Eskimo, on the other hand, is a guilt culture; the offender views himself as a sinner before the gods and receives the help of the community as if he were a wayward child.

Shame and guilt in Western and Greek cultures. Pollis (1965) also employed the dichotomy between shame-oriented control and guilt-oriented control in contrasting individual behavior in the West with that in contemporary Greece. In the West, individual behavior is predicated on individual autonomy, and guilt is the device used for social control. The Greeks, on the other hand, define the self as interindividual, and in Greek society integral group membership governs psychological functioning. Ethical standards are imposed with the threat of shame serving as social control, although there are some class differences (Prothro 1966). The conception that the self is part of the larger group—an idea that precludes freedom of choice—is inculcated into the child. Skinner (1965) points out that personal responsibility for one's conduct is incompatible with personality development in contemporary Greek culture, which favors displacing internal disturbances and distresses to the external environment.

Similarity in humility and dependency training between Filipino and Indian cultures. There is a remarkable similarity between the behavior expected from the Filipino child and

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[1] See also Erikson 1962:308.

that expected from the Indian child in Malabar. This is true despite the fact that in Malabar social relations are governed by greater rigidity and minuteness of detail, with roles more clearly delineated (Mencher 1963).

The good Indian child is humble, intelligent, kind, religious, well-behaved, and, above all, obedient and respectful. He is proud of belonging to a family enjoying a good name. Like the Tagalog child in the Philippines, he respects his elders, always remembering that the greatest respect is due those who are more advanced in years. He is never encouraged to do things by himself because he may become too self-reliant and thus endanger the unity of the group; indeed, he never even sleeps alone.

Like the Filipino child, the Indian child avoids standing out or being caught in error. He is teased and ridiculed often, and, at times, punished with blows, which are viewed as necessary to make him behave properly. According to Mencher, the child is never praised since praise is suspected by Malabar society as being untrue.

The mother arouses guilt in the child when she shows him how he makes her suffer. Personal happiness also evokes feelings of guilt in the child. In turn, the child learns that not eating evokes feelings of guilt in the mother.

Discontinuity in socialization among African children. There is abrupt discontinuity in the socialization of the Amhara child in Abyssinia. A regime of discipline and repression replaces the indulgent care with which the child is treated until the age of three (Levine 1965). Levine observes that the spirited and expressive child of two or three years of age is conditioned for the rest of childhood and throughout life to become taciturn, fearful, and morose. As the child's dependency needs are abruptly rejected, he develops anxiety about food and nurturance in general as now he receives only the leftovers of the adults' meals. At the same time, he is sensitized to various types of insults, develops suspiciousness of the intentions of others, and is motivated to strike back if offended.[3]

Among the Amhara deception is also used in a positive way to avoid hurting the feelings of others. As in much of Asia, an insincere "yes" is preferred to an outright "no."

There is no ambiguity about sanctions. Levine reports
that there is among the Amhara a characteristic predilection
for administering physical punishment; they assume that it
has a salutary effect. Their festivals involve games which, in
reality, are battles with cudgels and whips; these provide them
with opportunities to act out aggression within a legitimate
context. Levine writes that

> not a single Amhara TAT respondent objected
> to any of the corporal punishment cards. One
> even exclaimed when regarding one of the beat-
> ing scenes, "What a beautiful punishment!"
> (Levine 1965:253).

Orality is a prominent theme among the Amhara.[6] It is
expressed in their concern for food, their numerous fast days,
declamations, and use of litigation as a national pastime.

> Argumentation, litigation, insulting, and revenge
> comprise the hard core of social interaction
> among the Amhara and serve as emotional outlets
> in a society which strictly controls every kind of
> overt aggression toward authority—parental, reli-
> gious, or political (Levine 1965:250).

It must be added that a pitiless regime of fasting also
serves as a means of controlling the problem of aggression.

Levine points out that his findings with regard to child-
hood experience and dependency are not consistent with those
of Whiting and Child (1953). The factor leading to the chronic
depressive tone of later life is not the *low level* of gratifica-
tion of the infant, as Whiting and Child would claim, but his
deprivation of nutritional and emotional satisfaction *after
weaning*, as he becomes subject to the responsibilities, punish-
ments, and suppressed status which are the lot of Amhara
children.

In many African societies, sanctions and incentives are
applied to the child by the entire kinship group on which he

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[6] O"Neil reports that of four groups he studied, the Amhara show
the greatest frequency of manifest orality in dreams: 64 per cent
compared with 22 per cent for Americans, 38 per cent for non-
Muslim Nigerians, and 55 per cent for Muslim Nigerians at the time
of Ramadan (O'Nell, C. Unpublished master's thesis. University of
Chicago, 1964. Reported in Levine 1965).

is ultimately dependent. The primary aim in socialization is the instilling of obedience in the child. The African child has many responsibilities but little independence, and he is frequently the hand servant of all. High status is associated with freedom from physical labor. The child's behavior is kept in line by his hopes of receiving from his father more gifts than his half brothers (R. LeVine 1962).

A sharp discontinuity in socialization among the Ashanti —a pattern similar to that observed among the Amhara by Levine—is described by Field (1960). Field reports that among the Ashanti, infants are petted and admired even on those occasions when in the West they would normally be out of sight.

> Dignified elders sit at councils handling infants. But one of the most striking features in the African attitude to the child is the contrast between the lavish affection meted out to infants and toddlers and the harsh disregard which is the lot of most older children. The adored small child has to suffer the trauma of growing into an object of contempt—even in the eyes of its family. "Small boy" is an opprobrious epithet. A child of either sex is still sometimes sent to live with relatives or others to whom the parent is under special obligation and is there made to work virtually as a little slave. A proverb runs, "It is unpleasant to be a child." Particularly it is unpleasant in the matter of food. Any food which fills the belly is considered good enough for children (Field 1960:28).

As mentioned previously, if the child resents the mother's relations with the father, it may be less because the mother sleeps with the father than because she provides him with the best food. To what extent the transition from indulgence to capricious severity lays the foundation of the prevalent sense of persecution among the Ashanti is not clear. Although shaming is not used exclusively in the sense of ridiculing— since social control is invested in part in supernaturals—there is also an element of guilt that controls behavior which can be ferreted out by *shamen* at the shrines.

Socialization in a Jamaican village. Cohen (1961) describes socialization in a Jamaican village as extremely depriv-

ing and restrictive in some areas and unpredictably permissive in others; it has similarities to socialization among the Vallecanese, which was studied by Landy (1959).

Concerns about food loom large for the child. Infants are fed not when they cry but at four-hour intervals. According to Cohen, though temper tantrums are frequent, they hardly elicit a response from the parents. As children grow older, they are allowed to fetch food for themselves; they must make sure, though, that the food they take is not intended for someone else. They must be content with what they receive at mealtime, and by the age of five, children who cry for food after a meal are punished. Illegitimate children are fed even less than legitimate ones, and receive minimal care.

Among the Jamaicans, there seems to be minimal internalization of norms; instead, corporal punishment is frequent. Belonging to what is essentially a shame culture, the child is motivated to "get away" with what he can in the absence of an authority figure.

Child training among the Hopi. As in many American Indian societies, there are few sanctions other than public opinion or the threat of supernaturals among the Hopi (Cohen 1961). Before he is six years of age, the child learns that good behavior wins supernatural support for the community, while bad behavior brings down evil on all. The community emphasis is demonstrated most clearly when a mother's brother punishes all his sister's sons when called upon to discipline one of them.

> It is exceedingly probable that Hopi socialization techniques, effective though they are in producing conformity, leave the individual with a life-long basis for mistrust concerning the motivations of others. The behavior of joking relatives who claim to be affectionate, parents fobbing off responsibility for severe punishment onto other relatives and onto Soyoko, the use of the Katcina figures for rewards and the withholding of rewards . . . combine to create in the child's mind a grave difficulty in interpreting the true intentions of others (Aberle 1961:272).

The function of the witchcraft beliefs described by Aberle (1961) is to localize the damaging individual among one's relatives, the very people on whom the child depends for support.

Control of envy in Tzintzuntzan, Mexico. Externalized control through symbolic and other forms of behavior in Tzintzuntzan, Mexico, permits the expression of envy but neutralizes the danger that would otherwise arise from it. Foster (1965) feels that this type of control is characteristic of peasant society in general. It is demonstrated most clearly when one pays somebody a compliment; according to Foster, the compliment always disguises jealousy on the part of the giver, and this is the reason why the recipient experiences embarrassment and flounders in his attempt to respond appropriately.

In Tzintzuntzan, behavior that keeps people on an equal footing is considered good. For instance, though babies are considered desirable, pregnancy and the birth of the child are concealed to avoid envy. Some mothers even deliberately allow their children to stay dirty and clothe them in rags to prevent them from being targets of envy.

Silence while eating is considered a virtue and is instilled in children from an early age so as not to call attention to their good fortune. Thus, concealment and denial are the most common forms of behavior and control impressed upon the child. Such defenses, even though externalized, do not readily fit into the social control models of guilt and shame.

Evidence of Flexibility and Change in Socialization

Flexibility in Kamba and Igbo cultures. In discussing the cultural flexibility of the Kamba of East Africa, Oliver (1964) points out that the impression is frequently given in ethnography that cultural systems are more tightly structured than they really are.

> It is obvious that no culture can be so rigid that alternatives within the system do not exist, and no culture can be so fluid that there is no structure at all. It is further clear that there must be a degree of cultural commitment among all peoples (Oliver 1964:422).

There is an amorphous quality to Kamba culture: the power structure is not definite, rules are open-ended, ceremo-

nies manifest improvisation, and there is an obvious avoidance
of specificity. In this otherwise fluid system, it is the clan
that supports the individual and provides him with security.
It is probably the amorphous quality of their culture that has
made it possible for the Kamba to adapt to many changes
more successfully than their neighbers.

Similarly, the lack   a rigid social structure and the em-
phasis on individual energy have contributed to Igbo adjust-
ment to Western influences (Ottenberg 1959). Green (1964)
points out that the early upbringing of the small Igbo child
by other children probably leads him to assume an egalitarian
outlook, and favors the independence and lax discipline of adult
life. The formal oath, to which Igbo frequently resort in all
types of relationships, is a major means of social control in
their society.

Motivations of the Malabar child. Among the matrilineal
caste groups in Kerala State, India, elders have recently placed
greater stress on the development of internal controls, such
as guilt feelings, for socially approved behavior, and less on
methods of external control, such as the shaming of the child
by a group of relatives (Mencher 1963). In general, the in-
dividual in Malabar is motivated to do what is expected of
him by the following factors: internalized norms and values,
fear of external punishment, and a decision to follow rules
despite disagreement with the principles involved.

*Family interaction at two levels of acculturation in Su-
matra.* Employing interviews and projective data, Ross and
Bruner (1963) examined family interaction at two levels of
acculturation in Sumatra. The subjects were a peasant family
in a mountain village and an acculturated family in a seacoast
town. The two families were comparable in composition with
regard to age, sex, and village origins; each family also had an
adolescent daughter.

A noteworthy finding is that village children are per-
mitted greater verbal spontaneity in expressing aggression
than city children, who, living in a "polite" milieu, must re-
press it. In village life, as reported elsewhere, the individual
is seldom alone, and people there rarely engage in a one-to-one
relationship. Argument and gossip are expected forms of be-

havior. Effective control of the individual's behavior is exercised through shaming. The investigators found that village mothers, in controlling their children, do not rely on guilt as much as city mothers do. Ross and Bruner also point out that the closer the child is to the mother, the greater the use of guilt in social control appears to be.

Group identification and social change in Nigeria. Evident in many studies of societies emerging from preliteracy is the fact that although the child outgrows the caretaking needs of infancy, his dependence upon his group continues undiminished.

Morgan (1965), whose research was based on interviews with and records of Nigerians in medical school, finds significant differences in successful scholastic performance between those Ibo and Yoruba coming from larger and more prestigious tribal areas and those from peripheral tribal areas. He concludes that a strong identification with and dependence on a traditional group prepares a student better for the crises of social change and causes him less mental stress in confronting such crises than a transitional orientation, which leads to identity confusion with the attainment of personal independence.

Supernatural Sanctions in Different Societies

As we have mentioned above, a number of societies invoke supernatural sanctions for social control, a practice that takes the form of either sorcery or witchcraft. Several investigators have made an attempt to relate witchcraft and sorcery beliefs to residential and other living patterns.

Witchcraft beliefs among the Nupe and Gwari. R. LeVine (1962) reports that in Kenya the highest incidence of witchcraft beliefs is found in groups where the husband's wives live together in the same house, presumably as a consequence of their jealousy and projections.

Nadel (1952), who compared the witchcraft beliefs of the Nupe and the Gwari, observes that their only difference in child rearing seems to be found in the post partum sexual activities of the parents. At the termination of the two-year post partum taboo on maternal sexual activities, the Nupe woman visits the man in his hut while the Gwari husband visits

his wife in her hut. In the latter arrangement, sexual intercourse takes place in the presence of young children. This difference may account for the fact that while the Nupe have sexual antagonism (accusing women of witchcraft) but no primal scene, the Gwari have a primal scene but no sex antagonism (accusing individuals of both sexes of witchcraft). LeVine (1961) suggests an alternate explanation: that the Nupe child feels abandoned by the mother, while the Gwari child sees the father as an intruder upon his relations with his mother.

The Yoruba's relations with the supernatural. Among the Yoruba, offending a spirit is different from guilt since it does not have the internal quality associated with the latter, and restitution can easily be made through appropriate sacrifice to the spirit. The Yoruba use of curse and invocation may be a consequence of the attempt to recapture the era when the child could master the universe through movements of his mouth (Prince 1960). The prolonged breast-feeding of the Yoruba child until the age of three or four, as well as his being carried on his mother's back (which prevents him from exploring and mastering the environment in other ways), may influence the de 'lopment of this practice.

Because the relation between mother and son is typically more significant than that between husband and wife in polygamous societies like that of the Yoruba, there is a special problem in training the son to be independent. It has been suggested that this relation gives rise to harsh initiation practices. In addition, Prince (1961) points out that belief in witchcraft allows the Yoruba to idealize the mother; the witch serves as the collective image of the bad mother, much as the mother-in-law does in American society.

Sorcery among the Visayans and Kalingas in the Philippines. Among the Visayans of Sibulan in the Philippines, illness due to sorcery is associated with social antagonism. Although superordinate controls aside from sorcery are available, they are not very effective, especially when applied to kin. Lieban (1960, 1962) also observes that there is a sexual element in sorcery projections.

The socialization practices of the Kalingas in the Philippines (Scott 1960) seem to support Whiting's (1959) find-

ing that there exists a relation between the importance of
sorcery and the absence of a formal judiciary system. When-
ever adults find children doing something they disapprove of,
they pick them up and set them somewhere else, or distract
them with a new object. Children are not scolded or given
specific instructions to carry out; they learn, instead, by imi-
tating adults. Any child or adult may enter any house at any
time, and eat and sleep there. There is no privacy; among
Kalingas, all of whom go around nearly naked, there occurs
considerable body contact. Control is provided, however, by
numerous gods, ghosts, and malevolent spirits; every accident
or sickness is attributed to the displeasure of *unito*, or deities,
who can be placated only by a priestess.

Manifestation of tension among the Tiv. The Tiv do not
manifest tension through overt hostility but displace it to the
covert supernatural level (Price-Williams 1965). Oral aggres-
sive themes among them reflect anxiety about food scarcity
rather than deprivation in early nursing, which, among the
Tiv, is in fact benevolent. Aggressive behavior is at first en-
couraged, then sharply discouraged; it is also the focal theme
in folk tales. Although there are other controls, supernatural
sanctions play a prominent part in child rearing.

Re-evaluation of the Shame-Guilt Dichotomy

While only a small proportion of cross-cultural investiga-
tions explicitly study social control in terms of the shame-
guilt dichotomy, many of these studies seem to provide evi-
dence for such a dichotomy. The possibility should also be con-
sidered that the dominant aspects of a culture may have led
investigators to overlook minor, but influential, factors affect-
ing child-rearing practices. At this point, however, it may
prove worthwhile to examine several other theoretical orien-
tations to the problem of social control and the socialization
process aside from the shame-guilt dichotomy.

Guilt and acceptance of blame. From his study of sorcery
and witchcraft, Whiting (1959) concludes that classifying
societies as either shame-oriented or guilt-oriented, or as outer-
oriented or inner-oriented, is too simple. He feels that guilt
and acceptance of blame are phenomena which are equally

complex. He concludes, instead, that there are three independent motivation systems related to social control: 1) a paranoid fear of retaliation from other human beings, 2) a sense of sin arising from the projected dread of gods or ghosts, and 3) a sense of guilt and readiness to accept blame arising from a sense of personal responsibility for one's actions.

The first is produced by early seduction followed by severe punishment for sex; the second, by early neglect followed by severe punishment for aggression; and the third, by early socialization as well as by membership in a nuclear household, which accentuates the rivalry between the child and the father for the nurturance of the mother.

Commenting on Whiting's position, Levin (1959) suggests that instead of classifying social control mechanisms in terms of the shame-guilt dichotomy, it may be useful to relate them to whether the individual is concerned with losing his own or others' good opinion of himself. From such a standpoint, we would include under shame the individual's concern for other people's opinions and concern about public detection; under guilt we would place confession, reparation, and self-punishment. Levin suggests that we should be more concerned with the antecedents of each behavior, and he prefers a continuum from "social approval" to "self-approval."

Guilt and shame as nondichotomous. Ausubel writes that without guilt,

> sheer physical force, threat of pain, deprivation, punishment, and withholding of love and approval would be the only available methods—combined with constant surveillance—to exact conformity to cultural standards of acceptable behavior (Ausubel 1955:378).

His position is that guilt and shame are neither dichotomous nor mutually exclusive, and that guilt does not depend on the unique parent-child relationship. Mead (1953) says, in commenting on American adolescent society, that shame—the agony of being exposed to the disapproval of one's peers—is a stronger sanction than guilt—the fear of not measuring up to the standards represented by parents.

Ausubel does not accept the Freudian superego model for guilt; that is, the parents as the original source of moral

authority. His contention is that this model would rule out guilt-oriented societies like the Hopi, where sanctions are from the group as a whole, as well as American adolescents, who are dependent on peer culture. He also feels that this model cannot encompass two types of individuals: the child who is rejected by the parents but who accepts rational principles of moral authority, and the adult with a rational acceptance of the necessary norms of social behavior but who has transferred allegiance from the moral authority of his parents to that of society.

It seems that Ausubel's position, however, derives from an incomplete understanding of the superego model, which, in fact, can account for rational as well as irrational acceptance of norms derived from the internalization of standards during childhood. In fact, rational acceptance of norms may not involve feelings of guilt as usually defined.

Ausubel's definition of guilt as a negative self-evaluation when one's behavior is at variance with moral values also does not account for the fact that one's conscience may be more strict than conventional moral values; that is, some members of a society may feel guilty over actions that conventional moral values may not regard as transgressions. According to him, "The external reference of guilt is apparent in that it is reduced by punishment and confession. It always implies an offense against the group" (Ausubel 1955:388). He contends that shame relies on external sanctions alone, and that guilt relies on both internal *and* external sanctions, the latter referring to the presumed judgment of others. However, one must always bear in mind that in all societies there is a discrepancy between normative reactions and actual reactions.

Guilt and shame in children. Levin and Baldwin (1959) take a somewhat different approach in considering the question of pride and shame in children. They hold that shame is felt by the child because of public awareness of a failure or transgression on his part; guilt, on the other hand, develops from his private awareness of a transgression. Among boys they find that the more a child has been rewarded in the past, the less sensitive he is to the possibility of public disapproval; on the other hand, the more he has been punished,

the greater is his sensitivity. Their conclusion is that shame is dependent on social disapproval. It must be added that parental disapproval would be sufficiently anxiety-provoking if the child is dependent on the parent to lead him to conform to rather than resent the latter. This is also suggested in the studies on Vallecanese and Jamaican cultures (Cohen 1961; Landy 1959).

Internalization as a necessary component of socialization. If we consider behavior in terms of the continuity of societies, it follows that internalization or, at its most simple level, learning is a necessary component of socialization. Spiro (1961b) points out that if norms were not internalized, they could not possibly be transmitted by parents to their children, and there would then be no feelings of shame, let alone guilt.

The degree of internalization varies in different cultures. In some, parents would probably not consistently follow norms without constant reinforcement from the community. In such cultures, the parent ultimately behaves in terms of community expectations. The studies cited in this paper, despite their diverse approaches to child training, suggest in each case that the parent always has in mind the cultural ideal of how to produce the "good child."

Spiro contends that even in those cultures approaching the ultimate shame culture, most individuals experience "moral anxiety" if they should desire to violate norms of behavior. Moral anxiety, according to him, represents the largely unconscious expectation of punishment, as distinguished from the rational, conscious fear of punishment. Thus, if the individual has knowledge of a norm but has not internalized it, he suffers no moral anxiety when he violates it and does not consider his act wrong.

Moral anxiety is acquired by the child from those socializing agents who nurture and satisfy his need for love. Seeing rewards and punishments as symbolic of his parents' love, the child is motivated to comply with their desires.

In this view, societies with many socializing agents would produce individuals with a shame-oriented rather than a guilt-oriented superego, the distinction results from the fact that al-

though the child would internalize the norms of socializing agents, he would not introject the agents themselves.

Other distinctions between shame and guilt. Lynd (1958) feels that there are distinctions that can be made between shame and guilt other than that made by Benedict.

> Despite the fact that the concept of guilt is pre-valent, contemporary methods of child rearing, of teaching, or social counseling—except perhaps in some religious groups—do not ostensibly attempt to develop and make use of a sense of guilt.' Words like good and bad have been re-placed [in the United States] by mature and immature, adjusted and maladjusted. They carry the same weight of approval or disapprov-al. Adjustment in our society has replaced hope of heaven as the supreme good (Lynd 1959:18).

For Lynd, the essential difference between shame and guilt is that shame accompanies a failure while guilt anxiety accompanies a transgression. Examining this distinction more closely, one is led to the realization that inferiority feelings, which are the basis of shame, are a presocial phenomenon, whereas guilt feelings result from efforts to achieve social ad-justment. The situation in which the individual finds himself may give rise to both shame and guilt simultaneously, or they may alternate with and reinforce each other. According to Lynd, guilt carries the additional meaning of debt, that is, being justifiably liable to penalty. However, it has no self-reference, unlike shame, which is a painful feeling of having done something unworthy, an exposure of oneself that calls down on one the contempt of others.

Lynd reminds us that the shame of being exposed varies from one culture to another. In the United States, it is a consequence of being caught naked; in other cultures, it is associated with being seen while eating or having contact with certain kin. Unlike guilt, shame is irreversible and can-not be undone. According to Lynd, shame is not an act but a revelation of the whole self; blushing manifests the exposure, that is, the involuntary nature of shame. Rather than being

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' Of the studies reported here, only those on child training in India suggest that guilt is consciously used by parents in child train-ing.

"moral anxiety" caused by a fear of punishment, as Spiro suggests, shame is the sudden exposure of the individual both to himself and others. This is an isolating experience; Piers and Singer suggest that

> behind the feeling of shame is the unconscious irrational fear of contempt which spells fear of abandonment...The deeper rooted shame anxiety is based on the fear of the parent who walks away "in disgust," and...this anxiety in turn draws its terror from the earlier established and probably ubiquital separation anxiety (see Lynd 1958:67).

In guilt, on the other hand, it is the fear of mutilation that is basic.

Lynd's suggestion that inferiority feelings of shame are a presocial phenomenon indicates a further distinction between shame and guilt: that certain aspects of life are not cultural and can be understood only with reference to transcultural values. This point can be illustrated by "the feeling of shame that one is ashamed of feeling because one does not accept the standards on which it is based" (Lynd 1958:37).

Conclusions

The studies reviewed on child training for independence reveal that it is difficult to divide training practices into the two categories suggested, as either shame-oriented or guilt-oriented. However, the social approval-self-approval dichotomy is also a simplification since both social approval and self-approval are involved in experiences of both shame and guilt. Their presence in guilt is seen in the recognition of the transgression (self-approval) as well as in punishment, or the payment of the debt (social approval).

Although the dominant method of social control may be either norm-oriented or sanction-oriented, both orientations undoubtedly operate to some degree in all societies. However, despite the fact that guilt and shame are neither dichotomous nor mutually exclusive, research on non-Western societies indicates that in many of them, "sensitivity to shame largely takes the place that remorse and self-punishment have in white American society" (Ausubel 1955:378). The use of both shame- and guilt-oriented social controls is reported for

matrilineal caste groups in Malabar (Mencher 1963), rural and urban families in Sumatra (Ross and Bruner 1963), a Puerto Rican village (Landy 1959), the Ashanti (Field 1960), Samoan children (Grinder and McMichael 1963), and Japanese and Hawaiian children in Hawaii (McMichael and Grinder 1966).

In the discussion of techniques, it was pointed out that the use of an ethnography as an approach to the study of child rearing has its drawbacks since an ethnography is itself an abstraction from a culture. Similarly, the use of the Human Relations Area Files for the analysis of any specific problem has disadvantages. It is likely, however, that the increasing use of experiments directed to studying social control cross-culturally will elicit results more detailed than those presently available. It is encouraging to note, for instance, that despite problems in design, the research of Grinder and McMichael (1963) with Samoan children was able to demonstrate experimentally that guilt is present in what has been previously considered a shame-oriented society.

Cross-cultural studies suggest that cultural conformity is most frequently achieved, despite the wide variety of methods, because the social systems as well as the projective systems (witchcraft, supernatural influences) satisfy personality needs, at least minimally. Still unresolved is the problem of whether socialization practices are functional, as proposed by Barry, Child, and Bacon (1959), or only incidental to the dominant requirements of the social system, as stated by B. Whiting (Minturn and Lambert 1964).

The theoretical basis for the universal nature of shame derives from its presocial character (Lynd 1958), whereas that for guilt results from its relation to the internalization of those norms necessary for the continuity of societies (Spiro 1961b). The variations in the reported use of guilt and shame as techniques for social control in non-Western societies can be the basis for the development of hypotheses for further psychological research which would focus on the antecedents and content of these experiences as well as on their consequences for the individual.

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The Antecedents and Correlates of Aiding Responses: a review of the literature*

ELIZABETH MIDLARSKY

Constant reports of violence have led social scientists to a justifiable concern with the problems of antisocial behavior. This preoccupation, however, has resulted in a concomitant lack of attention to that behavior which may be termed "charitable" or altruistic. In recent years this imbalance has been corrected somewhat; there has been a notable increase in both theoretical and empirical work in the area of altruism. This essay reviews some of the contributions that have been made to the study of altruism.

Altruism may be defined as that behavior which incurs some cost to the individual but brings him very little by way of gain — relative to the magnitude of his investment — or nothing at all (cf. Homans 1961). Helping others at risk to oneself and sacrificing a reward in order to benefit others are the two major manifestations of such a behavior.

Behavioral scientists who have written about altruism see it from one of two distinct perspectives. For one group, mostly sociologists (e.g., Sorokin 1948, 1954; Budd 1956; Montague 1950; Dechesne 1950), altruism is a panacea for the ills of mankind. For the second group it is in reality nothing but a cloak for man's Machiavellian or neurotic motives—something that is therefore unworthy of any serious attention (e.g., Queen 1930; Schulweis 1964).

Those psychologists who consider altruistic behavior as unworthy of serious study are probably prompted to do so by

ethical skepticism; that is, by a belief that individuals sacri-
fice only when it pays them to do so, egoistically. The wide-
spread acceptance of this skeptical view is not at all surprising
when one realizes that its three major sources were central
to the developing field of psychology; these three sources were
Freud's Psychoanalysis, Watson's Behaviorism, and certain
interpretations of Darwin.

For the Freudians, man's basic nature is irrational, hedo-
nistic, and self-centered; according to them, the motives of the
individual who behaves in an altruistic manner are either self-
ish or masochistic. In Watson's peripheralist psychology, on
the other hand, the concept of consciousness is rejected, thus
rendering any consideration of ethics wholly meaningless. Fi-
nally, according to some influential interpretations of Darwin,
the principles of "natural selection" and "the survival of the
fittest" imply that only man's egoism and his ability to com-
pete with others are rooted in his biological heritage.

The influence of these schools, however, has waned with
the passage of time; many critics have pointed to their short-
comings. It has become a matter of widespread agreement
that Freud greatly overemphasized the negative, irrational
side of man's nature (cf. Hill 1950). Critics of traditional
Behaviorism have noted that Watson's outright rejection of
consciousness was based not upon the empirical study of the
existence of consciousness as a phenomenon, but upon a meta-
physical distinction between mind and body (Heidbreder 1933).
Finally, opposing the more frequent interpretations of Dar-
win's thought, a number of contemporary studies have con-
cluded that altruistic motives are important for survival, and,
like selfish motives, are likely to be innate to the human be-
ing (e.g., Holmes 1945; Montague 1950).

Because the existence of altruism has only recently be-
come theoretically admissible (cf. Campbell 1965), research
relevant to it is found scattered in different quarters of social
science literature, ranging from studies of cooperation and
competition (Deutsch 1949; Sawyer 1966) to studies of
the correlates of aiding responses during disasters (e.g., Logan,
Killian, and Mars 1952) and the behavior of "good neighbors"
(Sorokin 1950). Although these studies are highly diverse
in nature, a simple three-fold classification will be employed

in this paper; studies to be cited will be considered under one of the following topics: 1) the existence or status of altruism as a phenomenon, 2) the correlates of altruism, and 3) experimental findings on the antecedents of altruism. In addition, methodological considerations and criteria for the investigation of altruistic behavior will be discussed.

The Existence of Altruism

Exposure to the constant reports of crime and violence appearing in mass media leaves one in serious doubt about man's willingness to aid his neighbor.[1] The degree to which individuals disregard the needs of their neighbors appeared quite extreme when on March 13, 1964, a young woman, Kitty Genovese, was stabbed to death in the sight of 38 witnesses in Kew Gardens, New York.

On the first occasion that the killer attacked her, Kitty screamed, "Oh my God, he stabbed me! Please help me!" From one of the apartments a man cried, "Let the girl alone!" The killer did so. Twice the sound of voices and the turning on of bedroom lights frightened the killer away, but each time he returned for a fresh assault. Not until 15 minutes after Kitty died and the killer fled did anyone call the police. Further, the one man who did so called only after he first telephoned a friend in Nassau County for legal advice and tried to persuade an old lady in another building to make the telephone call for him. "I didn't want to get involved," he told the police.

Witnesses of the Genovese slaying were contacted subsequently by a reporter of *The New York Times*, and through half-closed doors they revealed to him that they had feared any kind of involvement, or had been afraid without being able to pinpoint the source of their fear. One woman interpreted the situation as a lovers' quarrel and went back to bed. Some individuals stated that they had watched, known what was going on, and even turned off their bedroom lights in order

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[1] While violent behavior seems commonplace, individual acts of altruism become the subject of human interest news (Bowser 1963; Johnson 1966). Groups of people, such as the Hutterites (Arnold 1954) and the Mennonites (Krahn, Fritz, and Kreider 1954), that exemplify the principles of cooperation and brotherhood, seem to do so only by opposing the contrasting norms of the society-at-large.

to get a better view of the assault. They stated that they were not sure just why they had not attempted to help. One witness peered through a slight opening in the doorway and gave a clear account of the killer's second attack. Asked why he did not call the police, he replied without emotion, "I was tired. I went back to bed."

The interviews were later published and they stirred up public censure of the apathy of the witnesses, causing them to refuse to discuss the matter further with members of the press. Others in the neighborhood, who were quite willing to communicate their impressions, sympathized with the witnesses in their current embarrassment and repeatedly emphasized that such an event could have occurred anywhere. "Why make such a fuss when it happens in Kew Gardens?" asked one neighbor. "Forget the whole thing...What happened, happened."

Rather than employ an incident of this nature to attest to the absence of aiding responses, we may view it instead as a reminder that "only in certain situations, and only in response to certain reflexes or certain beliefs will a man step out of his shell toward his brother" (Rosenthal 1964:69). And although there are many recorded instances when fatal indifference was manifested toward those who sorely needed help, it is also possible to cite many incidents when people extended help to those in need.

In order to provide a systematic interpretation of such events, we may first enumerate a variety of situations in which altruistic behavior is likely to occur. For this purpose we will employ Leeds' (1963) outline of "opportunities for altruism."

In her discussion of the "norm of giving," Leeds refers first to the opportunity given the child who is taught by his parents and teachers to share his blessings with others. Examples of conformity to this expectation are revealed in observational and correlational studies (e.g., Arnold 1954; Fischer 1963; Wright 1942; Madsen 1966; Ugurel-Semin 1952; Handlon and Gross 1959) as well as in experimental studies (e.g., Aronfreed and Paskal 1965; Midlarsky and Bryan, in press). These examples will be discussed in later sections of this paper.

Other opportunities for giving which exist outside the framework of directly prescribed social behavior are occasionally provided by calls for volunteer workers or donors from aid-providing institutions (London and Hemphill 1965). Still others inhere in those circumstances when there is either a social or a role vacuum.

A role vacuum exists in situations where helpful behavior is permitted but not required within the framework of a given role. Thus, a teacher who visits the home of a pupil who is ill provides aid beyond the chance expectations of her role, as does a friend who is available to provide material help whenever needed.

Opportunities for altruism are also provided by social vacuums; that is, situations in which there are no institutionalized means readily available for filling a particular need, or where existing organizations do not provide sufficient aid. When an automobile accident occurs and no institutionalized means for immediate care are available, those individuals first on the scene have an opportunity for altruism. Even in situations where institutionalized aid is available when needed, recipients of aid from existing agencies are often far more grateful to individuals who, like Sorokin's (1950) "good neighbors," supplement the formal aid with sympathetic words and kind deeds.

Social vacuums are created not only in situations where needs arise too quickly or are considered too "trivial" to merit the official consideration of institutionalized agencies, but also in those involving great danger. Examples of heroic self-sacrifice in the face of danger are available; many extraordinary acts of courage and altruism have been recorded during wartime, particularly in situations where motivation was maintained by the presence of a cohesive, interdependent combat unit (Grinker and Spiegel 1945). However, altruistic behavior is not evident in the majority of instances. The vast majority of POWs during the Korean War, for example, were apparently neither collaborators nor resistants; they performed no singular act of either kind (Biderman 1963).

Aside from opportunities for sharing, social vacuums, and role vacuums, another opportunity for altruism is a disaster situation, particularly during that time period before institutionalized agencies have reached the stricken area. Asked to

imagine themselves in a hypothetical disaster situation, many
individuals, queried on how they would react in circumstances
calling for their aid, asserted that while attempting to save
their own lives, they would attempt to save others, including
relatives, friends, and even strangers (Pepitone, Diggory, and
Wallace 1955).

Many writers report that during *actual* disasters there
takes place a large amount of aiding from institutionalized
agencies, individuals in the impact area, and society-at-large.
A number of investigators have presented data within the
framework of two descriptive hypotheses· the "disaster syn-
drome," and the cornucopia, or "abundance," theory of sup-
ply. The disaster syndrome—consisting of an isolation period,
a rescue period, and a period of rehabilitation (Wallace 1956)
—is of particular interest to the student of social interaction
The isolation period is best characterized as a period of shock
which gives one the impression of intense activity and disor-
ganization; during this period, most persons seem to be dazed
and unaware of the extent of the disaster. The results of a
study by Wallace (1956), however, dispell this prevalent im-
pression: during a disaster in Worcester, Massachusetts, of a
sample of 39 individuals, ten of the 15 who suffered no major
injury helped others; of the total 39, about eight aided only
their families, and about ten aided others besides their fami-
lies.

Most individuals seem to become more intensely altruistic
during the rescue period. Throughout this period, which may
last for several days, there is a great outpouring of generous,
heroic, and selfless activity. Even the injured are often "self-
sacrificing and willing to let others be cared for first" (Wallace
1956:125). In an explosion in Texas City, the rescue period
was characterized not only by individual acts of courage and
heroism, but by the emergence of a certain degree of coopera-
tive effort as well. The survivors of the explosion successfully
performed most of the rescue work (Logan, Killian, and Mars
1952). However, despite the heroic self-sacrifice shown by
many disaster victims during the rescue period, the presence
of persons manifesting antisocial behavior cannot be discounted

Community rehabilitation, the last phase of the disaster
situation, is rarely achieved without external assistance. Sup-

porting the cornucopia theory of supply, Wallace writes that during the rescue period of the Worcester disaster, "the area was stacked high with people and material trying to be of service" (Wallace 1956:101).

Mass media and observational accounts provide some clues as to why altruism is more likely to be manifested in certain situations than in others. An examination of observational-naturalistic studies of altruism among children and animals yields similar conclusions.

Altruism in animals

The little research done on altruism includes some studies on animals. Nissen and Crawford (1936), investigating the food-sharing behavior of young chimpanzees, found that two chimpanzees tend to share food equitably and without a struggle, particularly when they occupy the same cage. This study is of particular interest because food sharing involves a certain measure of sacrifice, bringing it closer to the literary definition of altruism than sympathy, the major focus of earlier work.

Twenty-two years after Nissen and Crawford's study, Holder (1958) demonstrated that rats aid a member of their species when reinforcement is maintained. Rice and Gainer (1962) found that, when faced with a choice of pressing a lever that would lower a plastic block suspended in a harness, or lowering a squealing rat that was similarly suspended, rats chose the "helping" alternative.

Criticizing the Rice and Gainer study, Lavery and Foley (1963) proposed that the direct reinforcement that the rats received upon lowering a fellow rat might account for the rapid rate of their "helping" behavior; that is, by lowering the squealing rat, the other rats were terminating an unpleasant stimulus—noise. Guided by both his original study and the ensuing critique, Rice (1965) found that rats paired with a member of their species uncomfortably immersed in a tank of water pressed a lever that would lift the latter significantly more often than did those rats not paired with a victim rat. He postulated that the critical variable might have been the activ-

ity of the victim rat—an exigency that could be construed
as supporting an "arousal" explanation of aiding responses.

Altruism in children

Most investigations of morality in children have been con-
cerned not with moral *behavior* but with moral *judgment*.
Their methodology has consisted primarily of a questionnaire
technique that requires the subject to make moral judgments
about hypothetical situations. Studies of this nature have
generally discovered that concepts of justice (e.g., Piaget
1932; Durkin 1959; Lerner 1937; Murphy 1947) and of rules
in general (Strauss 1954) increase in number as well as in
complexity as the child develops and matures.

In the final analysis, however, the presence of moral judg-
ment explains little about how one's conceptual framework is
translated into moral behavior. Hartshorne and May (1929)
are among the very few who have not focused on the degree
to which the child comprehends moral rules and concepts. and
have studied instead his willingness to help others in controlled
situations. After analyzing their data, these writers concluded
that there are many instances when children render service
to others. that is, manifest altruism. Furthermore, there is
apparently little relation between moral knowledge and moral
behavior; more important than knowledge, according to them.
are factors that inhere in a particular situation.

A survey of psychological literature since the appearance
of the Character Education Inquiry shows that there are few
studies indeed which deal with the question of whether or not
altruistic behavior appears in children. Lois Murphy (1937)
investigated children's capacity to be sympathetic and reported
that sympathy—the reaction to distress in others or the shar-
ing of joy or pain—is already present in children under four
years of age. Although sympathy does not ordinarily involve
self-sacrifice for the sake of another, this finding is of value
since it shows that even at an early stage of development. the
child is not completely self-centered.

So far, our examination of a variety of sources indicates
that there are indeed many instances when people behave in
an egoistic manner (e.g., Gansberg 1964; Bates, Fogelman.

Parenton, Pittman, and Tracy 1963). At the same time, examples abound of events when help, which was urgently needed, was provided (Sorokin 1950; Wallace 1956; Logan, Killian, and Mars 1952). The studies reviewed provide some evidence for the position that altruistic behavior may be manifested by a variety of subjects in a variety of situations. Equipped with data supporting the position that altruism is a phenomenon worthy of systematic investigation, we can now turn to a discussion of the correlates of such behavior within individuals.

Correlational Studies

The most typical investigation of the correlates of altruistic behavior has assumed the form of a search for individual differences. Studies of this sort have generally shown that variations do exist in the extent to which individuals manifest altruistic behavior (e.g., Turner 1948; Havighurst and Taba 1949).

A number of recent studies have addressed themselves primarily to the problem of devising means to assess altruistic behavior. For example, Sawyer (1966) developed a situational test for altruism which he termed an "altruism scale," while Cattell and Horowitz (1952) attempted to construct objective personality tests to be employed in investigating the structure of altruism. Attempting to explore patterns of giving and receiving, Ribal (1963) discovered four character types among a sample of 572 students: the selfish self, inner-sustaining self, receptive-giving self, and altruistic self.

Investigators of individual differences in helping behavior have frequently explored variations within the individual which may account for variations among individuals. Among the variables studied are the following: intelligence, sex, age, social class, and interpersonal perceptions.

Intelligence

Exploring the relation between altruism and intelligence, Fischer (1963) found that more intelligent children learn to share at a more rapid rate than less intelligent ones. Havighurst and Taba (1949) arrived at a .29 correlation between

intelligence and the development of a moral code in adolescents, a finding that led to their hypothesis that while intelligent individuals manifest socially approved behavior in a variety of situations, the development of a moral code may be based upon motivational, as opposed to intellectual, factors. Whether or not intelligent people do tend to e tend aid more frequently than the less intelligent is yet to be established. Nevertheless, within the setting of "laboratory" experimentation, intelligence remains a factor to be reckoned with. As Unger (1964) notes, studies dealing with moral behavior should continue to control for intelligence because those who usually respond to experimental conditions with socially approved behavior are the more intelligent subjects.

Age

While the relationship between intelligence and altruism has not yet been established, a certain measure of support has been provided for the existence of a correlation between altruistic behavior and age in children. Ugurel-Semin (1952) demonstrated such a relationship in a study where the measure of altruism involved sharing behavior. The relationship between age and generosity has also been discovered in two relatively recent studies: the first by Handlon and Gross (1959), who employed a task similar to Ugurel-Semin's; the second by Midlarsky and Bryan (in press), who used a dissimilar task and controlled for the possibility that differences might be attributable to changes in preference for the reinforcer.

It is interesting to note that among adults different relationships have been found. For instance, a large proportion of blood donors are young, as opposed to older, adults (London and Hemphill 1965). Furthermore, with regard to charitable behavior of a different kind, Sorokin (1950) discovered that there are more middle-aged people who tend to be among the "good neighbors" than either the young or the old. Any conclusions on the relationship between age and altruism must, however, remain tentative because so little research on it has been done, and because the studies available have employed different sampling procedures.

Social class

The relationship between altruism and social class remains unclear as well. With regard to altruistic *motivation*, data obtained by Berkowitz and Friedman (1966) suggest that even within the middle class, two groups can be distinguished by their norms of "social exchange." There is evidence that members of the bureaucratic middle classes are more willing to aid others, regardless of how much the situation benefits or is expected to benefit them, than members of the entrepreneurial middle classes. The latter, on the other hand, tend to give only as much aid as they have received.

Two other studies of norms and values indicate that altruistic motivation is more likely to be found among the lower classes than among either the middle or upper classes. Muir and Weinstein (1962) found that members of the middle class apparently give favors out of the need for reciprocity—a relationship akin to that dominating financial transactions. Members of the lower classes, on the other hand, manifest a "modified altruism"; that is, they give aid when they are in a position to do so, but with the expectation that others will do the same. However, it must be noted that Muir and Weinstein's sample might have included a disproportionate number of members of the entrepreneurial middle classes, and on account of this, later work may well come up with findings different from theirs.

Another finding that may well prove relevant is that of Pope (1942). He found that members of a lower-class church formed a cohesive group on account of their sharing supernatural goals, whereas members of an upper-class church were less cohesive because their primary concerns were individual success and social mobility.

Very little investigation has been devoted specifically to social class differences in altruistic behavior, and the results available tend to be contradictory. For instance, while London and Hemphill (1965) found that a significantly higher proportion of blood donors comes from the higher socioeconomic classes, Ugurel-Semin (1952) discovered that poor children are apparently less selfish than middle- and upper-class children. Since so few data are available, and the two studies cited em-

ployed different age ranges and divergent measures of altruism, no conclusion can yet be advanced on the relationship between social class and altruistic behavior.

Occupational and urban-rural differences

Aside from social class differences as such, investigators have provided limited evidence for the contention that occupational and urban-rural differences may have something to do with variations in sharing behavior. There are undoubtedly many instances when members of certain occupational groups are found, beyond chance expectation, among the aiders in crisis situations (e.g., Form and Nosow 1958; Wallace 1956; Chapman 1962). It appears, however, that such occupation-linked factors as specific experiences, competencies, and motivations are of greater relevance in altruistic behavior than the occupational role itself.

The influence of experience operating apart from a particular role is evident in the following example provided by Hamilton, Taylor, and Rice (1955): in a tornado-stricken community the most adaptive behavior was manifested by a boy who had experienced four previous tornadoes. The influence of motivational factors is underscored by Sawyer's (1966) finding that students belonging to the YMCA tend to be more concerned with the welfare of others in general than business students, who are more concerned with their own welfare. Finally, the influence of urban-rural differences is indicated by Madsen (1966); in an investigation conducted in Mexico which employed groups of children belonging to either an Indian village, the urban rich, or the urban poor, results suggested that urban children display a far greater competitive orientation than rural children.

Other factors

Additional factors operating within the individual which appear to be relevant in determining altruistic behavior are the following: the degree to which individuals feel competent in given situations, and the degree to which they believe their future to be determined by chance, as opposed to their own efforts. Findings relevant to the former will be taken up initially.

Competence

Competence has been defined as the degee to which there is adequate correspondence between role requirements and personality traits (Barton 1962). To Barton's definition we may add the stipulation that aside from general competence, individuals may manifest *specialized* competence in times of crisis if they possess a particular skill or experience (Hamilton, Taylor, and Rice 1955).

The importance of both actual competence and the individual's estimate of his competence is suggested by several s^{...}dies. Form and Nosow (1958) found that a high degree of technical competence as well as prior experience with disasters were among the characteristics of effective helpers in a tornado-ravaged community. Torrance and Ziller (1957), employing a scale designed to measure the propensity of individuals to take risks, found that those who both scored high on the scale and did best in survival training saw themselves as physically and socially adequate, competent, and well-trained.

Of further interest are two experiments (Horowitz 1965; Berkowitz and Connor 1966) which support the notion that competence and evaluation of competence are significantly related to the individual's overt behavior. The study of Berkowitz and Connor is directly related to aiding behavior. Their procedure involved the induction of success or failure on a preliminary, irrelevant task, with the objective of assessing its effect upon subsequent aiding. Results indicated that those subjects who had experienced success on the first task tended to give more aid to others during the second. If we regard the induction of success or failure as directly affecting the individual's perception of his own competence, then the results of this study indeed support the notion that perceived competence is related to helping.

One explanation for the apparent influence of competence upon helping behavior is suggested by Withey's (1962) paper. He notes that studies of both humans and animals suggest that individuals are best able to endure those situations of distress over which they feel capable of exercising control. To this we may add that feelings of competence may lead to an increase in aiding behavior because individuals who regard

themselves as competent anticipate less stress than those who
do not (cf. Janis 1962).

Fatalism

Rotter's social learning theory seems to suggest that the
individual who believes that events are determined solely by
factors external to himself—whether these are labeled "fate"
or "chance"—will be less likely to aid others than the indi-
vidual who has faith in his human capacity to influence the
course of events. Data from a variety of sources suggest the
importance of this variable.

Sorokin (1950) found that one of the characteristics of
his "good neighbors" was an optimistic. as opposed to a fatal-
istic, attitude toward the future. Withey notes that there is
evidence suggesting that feelings of anxiety, impotence, and
fatalism narrow the amount of practical knowledge that can
be assimilated and applied in crisis situations. Apparently,
those who do not feel that they are in full control of their own
affairs—a form of competence—are "unable to think of sever-
al ways of meeting emergencies" (Withey 1962:118); thus
they are unable to manifest effective behavior in times of cri-
sis.

Even when the individual does feel otherwise competent.
a fatalistic outlook may still impede his capacity to extend
aid to others. This may be attributed to his belief that even
the most skilled behavior on his part will be of little value in
a world in which chance is the major determinant of events.
Thus, aiding behavior may be impeded by the individual's feel-
ing that his self-sacrifice will simply not be worth the effort.

The particular relevance of fatalistic attitudes to altruistic
behavior has been demonstrated in a recent investigation.
Gore and Rotter (1963) studied the correlates of social action.
that is, the sacrificing of one's personal security in order to
promote the welfare of the group. Their procedure involved
asking students in a southern Negro college to sign a peti-
tion indicating their willingness to participate in a Students
for Freedom movement, followed by the administration of the
Internal-External Control of Reinforcements Scale. Results
indicated that those individuals who tend to see themselves

as determiners of their own fate (internal controllers) are significantly more likely to commit themselves to decisive social action than those who do not.

Interpersonal perceptions

Aside from the individual's evaluation of his competence and ability to influence the course of events, other types of perception have been demonstrated to correlate with aiding behavior.

One relationship is that established between the degree to which the child behaves in a generous manner and his evaluation of the generosity of others (Wright 1942). One drawback of Wright's study, however, is that her data do not permit one to determine conclusively whether the mechanism responsible for this relationship is imitation [complementary projection] or reciprocity [similarity projection] (cf. Campbell, Miller, Lubetsky, and O'Connell 1964). However, the fact that the subjects were more likely to help a stranger than a friend suggests that imitation rather than reciprocity may be responsible for the results.

Helper's view of the victim. Other factors which may be influential in the interpersonal aiding situation are the helper's view of the "victim," and, conversely, the victim's view of the helper.

Relatively consistent patterns of aiding behavior following disasters suggest the importance of the helper's view of the victim. Generally, people first help those they regard as being of great personal value to themselves; only later, if they are so inclined, will they give help to strangers. Variations in this pattern typically occur not with regard to the *order* in which others are aided, but with regard to the relative importance assigned to one or other category of persons, particularly the family.

The concern for the family, great in any event, seems to be particularly dominant in places where the extended family is viewed as being of enhanced value. Data collected after the Rio Grande flood (Clifford 1956) revealed a contrast in the aiding behavior of two communities, one of which was more family-oriented than the other. In the Mexican town of Pied-

ras Negras, patterns of both aiding and evacuation almost
exclusively involved the family. In a near Texas town, on the
other hand, neighborhood, community, and governmental or-
ganizations had a more potent influence.

Aside from observations in the field, two studies per-
formed by social scientists have pointed to the relation be-
tween the helper's view of the victim and the degree to which
aid is given. Sawyer's (1966) findings with his "altruism
scale" indicate that the degree of altruism manifested by col-
lege students depends upon their judgment of the other per-
son as either a friend, stranger, or belligerent. On the other
hand, Beatrice Wright (1942) found that children share more
readily with a stranger than with a friend; furthermore, chil-
dren who share with a friend tend to be more selfish than
those who favor the stranger. The apparently conflicting
results obtained by Sawyer and Wright are probably due to
the different age ranges employed as well as to the presence
of different situational variables.

Victim's view of the helper. The individual in need of aid
experiences feelings of helplessness and impotence. Such feel-
ings may actually be augmented by his very act of asking for
help. During such a period, when he is extremely vulnerable
on account of stress, the individual may be expected to be sen-
sitive to the behavior of those who are in a position to help
him. We may surmise that his initial view of the helper is
one of mistrust: he begins to wonder about the other's motives,
about how much he is expected to reciprocate for any aid he
is receiving. If the giver acts freely, "the recipient feels free
to exercise gratitude in his own way . . . for no reciprocity
is anticipated" (Leeds 1963:235).

During the period following disastrous occurrences, various
individuals and agencies proffer a large amount of aid to
disaster victims. Investigators of aiding relationships during
disasters have noted that the only organization that tends to
draw more negative than positive judgments from victims is
the Red Cross. The major reason for the negative judgments
seems to be the appearance of the Red Cross as a bureaucratic
agency whose main interests are external to the community
being aided.

Another example of the victim's negative view of the bureaucratic aider was the behavior of Mexicans who were swept by the Rio Grande flood (Clifford 1956); they were far more willing to accept spontaneous, unofficial aid from their neighbors in the United States than aid channelled through bureaucratic agencies.

The validity of the above interpretation, regarding the victim's attitude toward formal agencies which seek to aid him, receives some support in a study by Thomas, Polansky, and Kounin (1955). These investigators compared two groups: the first composed of clients who had been given the impression that a potential helper acting in a professional capacity had a high degree of motivation; the second, of those who had been informed that a potential helper had a low degree of motivation. They found that the expectations of the former were very different from those of the latter. A potential helper who is highly motivated is expected to enhance the process of communication as well as help in every way to relieve the client's discomfort in the situation. A positive relationship exists between the client's view of the aider as desiring to be of service and both 1) the client's willingness to continue the relationship, and 2) the client's willingness to be influenced.

The correlational work surveyed here provides some interesting insights for the investigator, among which are the following:

Contrary to popular belief, there is no firm evidence for a positive relationship between intelligence and altruism.

In addition, the few data available seem to indicate that the lower classes manifest a higher degree of altruism than the upper classes.

While children apparently share with others more readily as they grow older, among adults the relationship between age and giving remains unclear.

Additional variables, such as urban-rural differences, competence, and fatalism seem to bear a relationship to altruistic behavior; work in these areas, however, is still in the pioneer-

ing stage, and few firm conclusions can as yet be obtained
regarding their operation.

At best then, the results obtained through correlational
studies suggest possible relationships between sets of variables.
They shed little light upon the manner in which these various
factors affect one another. For a more rigorous investigation
of explanatory mechanisms, we must therefore turn to an exam-
ination of studies that involved the direct manipulation of
variables.

Experimental Studies

The majority of experimental studies have been predom-
inantly concerned with the situational antecedents of aiding
responses—where "situation" is taken to refer to all aspects
of the environment currently affecting the subject. While
situational variables are manipulated so that their influence
can be assessed, investigators control individual differences
through random selection procedures.

Among the experiments performed so far, two different
approaches can be roughly distinguished: 1) the elicitation
of aiding responses, and 2) the exploration of factors leading
to the actual development of altruism in children. The major-
ity of experiments employ the former approach.

Development of altruism

Despite extensive discussion on the kinds of child-rearing
methods that may be responsible for altruistic behavior (Sears
1957; Dinkmeyer 1965), experiments especially designed to
investigate sharing responses among children are quite rare.
Fischer (1963) showed that the degree to which children
would share marbles with a peer with whom they were unac-
quainted was augmented when they were reinforced with bub-
ble gum. Guided by his data, he argued that children share
only when they expect to be rewarded. His experimental de-
sign, however, precluded the possibility that other hypotheses
might be investigated through thorough analysis of his data

Two recent studies have provided support for the posi-
tion that altruism can be developed in an experimental sett.ng,
and that it need not be continuously reinforced. Aronfreed

and Paskal (1965) hypothesized that in an experimental situation, altruism may be developed in children when expressions of "joy" in the experimenter become associated with positive affect in the subject. This may be accomplished through the contiguous association of the experimenter's expressive cues with affection directed toward the subject. In the experiment performed by these investigators, three groups of children received "training" in the use of a two-lever apparatus. Training proceeded as follows: the child was shown that if he pressed one lever, he would receive candies; if, on the other hand, he pressed the other lever, a reaction of "joy" would be manifested by the experimenter. The major result of the study was that the children who observed the experimenter's reactions of "joy" and his consequent display of affection were more likely to sacrifice candies than those who either observed the expressive cues alone or received the affection alone.

The writers concluded that since the sacrifice of candies was significantly increased through a process of contiguous association, the development of altruism in this situation was completely explicable through the classical conditioning model.

This conclusion was subsequently challenged by Midlarsky and Bryan (in press), who noted that Aronfreed and Paskal had been unsuccessful in ruling out at least two alternative possibilities: 1) that the subjects exposed to both the expressive cues and the affection might simply have held more favorable attitudes toward the experimenter than the control subjects; and 2) that the "demand characteristics" (Orne 1962) for the experimental group might have been greater in number than those for their controls.

In order to investigate further the mechanisms responsible for the development of altruism, Midlarsky and Bryan employed two operational measures: 1) the sacrifice of candies in favor of a response eliciting "joy" in the experimenter; and 2) the anonymous donation of candy to "needy children."

The first part of the study involved a procedure similar to that of Aronfreed and Paskal but modified with the addition of several control groups. The results obtained in this replication tended to confirm the notion that both affection and expressive cues ("joy") are necessary in developing al-

truistic behavior. However, they tended to contradict Aron-
freed and Paskal's assertion that classical conditioning is the
basic mechanism through which learning is acquired. Instead,
through the use of both operational referents, the general con-
clusion reached by Midlarsky and Bryan was that altruistic
behavior may best be developed when the individual has been
provided with both affection and cues regarding the proper
course of action. It is interesting to note that the data ob-
tained by Midlarsky and Bryan in an experimental setting are
in agreement with those obtained by Hoffman and Saltzstein
(1967) in a questionnaire study.

The studies done by Midlarsky and Bryan, and by Aron-
freed and Paskal are, strictly speaking, the only experi-
ments that deal with the mechanisms through which altruism is
developed. It must be noted though that the differentiation
of these studies from the ones that follow is far from abso-
lute.

The reason for the differential classification is twofold.
First, the two experiments just presented are more directly
intended than are many others to provide experimental ana-
logues of parental behavior which may lead to the development
of helpfulness. A second justification, and one which is per-
haps more salient, is Midlarsky and Bryan's finding that their
experimental manipulation apparently does not lead to the
elicitation of a single, instrumental act, but to an attitude or
course of action that generalizes across situations.

Elicitation of altruism

A number of psychologists have recently begun to explore
the mechanisms through which aiding responses are elicited.
Some of the variables most widely investigated by them are the
following: the effects of the presence of a model, the norm of
reciprocity, and dependency relationships.

Models

Several studies have indicated that the presence of models
influences overt behavior. In the earliest experiments, those
most often employed as subjects were children (cf. Bandura
and Walters 1963). White and Rosenhan (1966) demon-

strated that the donation by children to a fictitious or-
phanage was significantly augmented if a charitable model had
first been observed. Aronfreed (1966) found that children
previously exposed to an adult who had relieved their distress
(caused by a disagreeable noise in their earphones) were sub-
sequently more likely to aid a peer in similar straits.

There is evidence that social models are also influential
in producing aiding responses in adults. Experiments with
adults have typically involved three conditions: the presence
of a social model, the presence of a deviant model, and the
absence of a model. Employing the three-group procedure,
Schachter and Hall (1952), Rosenbaum (1956), and Rosen-
baum and Blake (1955) found that individuals exposed to a
model who acceded to the experimenter's plea for volunteers
committed themselves more readily than "no model" controls.
In contrast, individuals exposed to a model who refused to
cooperate acceded *less* readily than the control group.

In a study by Blake, Rosenbaum, and Duryea (1955), sub-
jects who were requested to donate money were permitted to
see an experimentally contrived list of "model" donations. No
valid conclusions regarding the effects of "high donations" could
be attained since the list of "high" donations contained sums
which were not sufficiently larger than the average donation.
However, the results did indicate that where a low amount
was presumed to be the "standard," the individual's donation
was significantly less than that he would otherwise have made.

Berkowitz and Daniels (1964) were successful in showing
that individuals are more willing to help a peer when they
themselves have been previously aided. A subsequent experi-
ment by Goranson and Berkowitz (1966) demonstrated that
the effect of modeling is augmented when individuals are led
to believe that the help they have received is voluntary rather
than compulsary.

In effect then, the influence of modeling has been suc-
cessfully demonstrated in a number of studies employing a
variety of experimental manipulations. Despite the differences
in experimental manipulation, however, all the studies discussed
have in common one thing: they were produced within a labo-

ratory setting, where demand characteristics might be relative-
ly strong (cf. Orne 1962).

In an experiment she performed in a college laboratory,
Mary Ann Test (1966) attempted to minimize the effects of
demand characteristics; this was done by assuring the subject
that he would remain anonymous. She discovered that sub-
jects who had previously been helped or had observed a peer
being helped were, in turn, more likely to extend aid than
those who were exposed to either a deviant model or to no
model at all. However, although an attempt had been made
to reduce demand characteristics, the need still remained to
test the effects of the model in naturalistic surroundings.

Naturalistic studies assessing the influence of the model
had been done previous to Test's laboratory experiment. Hain,
Graham, Mouton, and Blake (1956) found that observing a
model significantly influences petition signing in the direction
of the model's behavior. Similar to these findings were the
effects of both social and deviant models upon the reactions
of subjects to signs and traffic signals (Freed, Chandler, Mou-
ton, and Blake 1955; Lefkowitz, Blake, and Mouton 1955;
Kimbrell and Blake 1958). However, all of these studies in-
volved behavior that did not entail much cost to the individ-
ual; thus the need still remained to establish the effects of
modeling upon *altruistic* behavior in a naturalistic situation.

In order to investigate the validity of generalizing the
modeling effect to naturalistic contexts, Bryan and Test (1966)
contrived a situation in which passing motorists saw a girl
standing beside a car which had a flat tire. Half of the mo-
torists had prior exposure to a situation in which a young man
was helping a girl in similar straits. Significantly more help
was offered by the sample of motorists who had observed the
helping model.

In general then, it has been shown that models affect
the behavior of both children and adults in situations where
helping behavior involves a certain measure of self-sacrifice,
as well as in those where no cost is incurred by the individual.
In addition, this effect has been demonstrated not only in the
college laboratory but also in a naturalistic setting, where de-

mand characteristics are relatively weak, and self-gain, even when it takes the form of social approval, is limited.

Norm of reciprocity

The tendency in psychology is to emphasize "within-the-skin" concepts and individualistic explanations to the exclusion of other factors. Recently however, a number of psychologists (e.g., Berkowitz and Daniels 1964; Daniels and Berkowitz 1963; Bryan 1966) have begun to recognize the fact that membership in a social group may influence many of our actions through the operation of normative factors. In particular, certain types of behavior are considered "moral" only because they are so defined by group standards, which are so often overlooked. A good deal of the individual's behavior is governed by "oughts" that have been more or less internalized; thus, many of his actions are based upon his anticipation of positive, as opposed to guilt, feelings which are a consequence of conformity to group standards.

A number of social theorists (e.g., Homans 1961; Gouldner 1960; Thibaut and Kelley 1959) propose an application of economic principles to human behavior; that is, they would view social interaction as governed by the individual's consideration of relative cost and reward. Much of human behavior, according to them, is based upon the "norm of reciprocity"; that is, social exchange between two individuals is maintained only if both of them are profiting from it. Thus, altruistic behavior is manifested because one has either received a service, expects to receive one, or is attempting to be worthy of one. In any given situation then, the individual currently "indebted" to others is the one most likely to be altruistic.

Muir and Weinstein (1962) have provided evidence for the existence of a norm of reciprocity. A large number of housewives they interviewed claimed that the norm of reciprocity was a frequent determinant of social exchange in a domestic setting. The respondents apparently felt that obligations should be paid voluntarily, and disapproved of those who did not live up to this norm.

Test (1966) performed an experimental study in which she manipulated dependency, reciprocity, and modeling. Care-

fully noting that in previous studies reciprocity and the effects
of modeling had been present together, she proceeded to sep-
arate the two factors, only to find that reciprocity has no ef-
fect beyond that of the model's presence.

One may dispute Test's results by pointing out that
they could only have been such because reciprocity was
irrelevant in the situation she employed. That is, in her ex-
periment, the subject either observed one peer give aid to an-
other, or was herself the recipient of such aid. Under both con-
ditions, the subject gave equal amounts of aid when subsequent-
ly given the opportunity. This being the case, the conclusion
was reached that reciprocity has no effect beyond that of the
model's presence.

In previous experiments, the subjects were helped by a
supervisor, and were later allowed to help either the same or
a different supervisor *win a prize* (e.g., Goranson and Ber-
kowitz 1966). Thus, the subjects were reciprocating for help
in a manner calculated to be of actual service to the other per-
son. In contrast to this situation, no actual benefits were re-
ceived by the participants in Test's experiment; all of them
were working for the benefit of an experimenter with whom
they had little contact, and for the benefit of a project about
which they knew very little. Thus, although the social model
might have stimulated a certain degree of imitative behavior,
the participants had little opportunity for reciprocity. In ef-
fect, the manipulation might not have succeeded because so-
cial exchange had occurred in a context where helping behav-
ior was of little personal benefit to the participants.

Dependency

While Test has argued that reciprocity may have no ef-
fect at all over and above the effects of the model, other in-
vestigators have pointed out that even if reciprocity is a fac-
tor in social exchange, it should not be emphasized to the exclu-
sion of other norms. Leeds (1963) notes that help is often
given to individuals who are too old, too young, or too ill to
reciprocate; he stresses instead the operation of a "norm of
giving" in aiding behavior, a norm that prescribes that help
be given even to those unlikely to reciprocate.

In their attempt to explain aiding behavior in situations where the aiders can expect no reward, Berkowitz and his associates hypothesize that there exists a "norm of social responsibility." Their position is that people give aid to others not merely because they expect to be rewarded in return, but also because they are motivated to conform to a norm that prescribes that one should aid those dependent upon him. Furthermore, this norm prescribes that the amount of aiding should increase as dependency increases.

A number of studies involving group behavior gave some impetus to the exploration of dependency relations. Several investigators (e.g., Deutsch 1949; Blau 1954; Berkowitz and Levy 1956; Thomas 1957) found that group productivity and group effectiveness (French 1944) are augmented when group members are interdependent. However, while these studies suggested that dependency might be a factor in group behavior, they did not demonstrate that the *single* individual would tend to aid a dependent peer in order to conform to a social norm.

To investigate the effect of dependency upon the aiding responses of individuals. Berkowitz and his associates have designed a standard experimental situation in which one individual is given the opportunity to help another without the prospect of receiving any reward. In essence, their procedure is as follows: The subjects are put to work on a dull and tedious task for which, as they are instructed, they will receive no reward. Half of them are told that their supervisor, whom they have never met, may have a good chance of winning a prize if they are sufficiently productive (high dependency); the others, on the other hand, are told that the supervisor's rating depends very little upon their level of productivity (low dependency).

Experiments using this procedure generally find that subjects tend to work more diligently when they know that their supervisor seems to be highly dependent on their efforts (Berkowitz and Daniels 1963; Berkowitz and Daniels 1964). An additional finding is that the subject is more willing to aid a dependent peer when he likes him (Daniels and Berkowitz 1963). Also, subjects are apparently less altruistic when they

are working under an experimenter belonging to their sex and aware of the extent to which they are productive; this factor has a significant effect regardless of the degree to which the supervisor is dependent on the subjects' performance (Berkowitz, Klanderman, and Harris 1964).

Experiments employing different techniques have been conducted by other investigators. Schopler and Bateson (1965) found that a person who is more powerful in a given instance will yield more to the demands of a powerless partner if he loses little in so doing. Schopler and Matthews (1965) have verified their hypothesis that a powerful person will provide more help to an individual whose dependence is apparently due to factors beyond his control ("external locus") than to one who is apparently dependent due to personal choice ("internal locus"). Finally, in contrast to Test (1966), who found that dependency has no significant effect upon either the amount of help or the number of offers of aid on a rating and sorting task, Rosenbaum (1956) found that an intense degree of dependency does augment the response to a call for volunteers.

In order to clarify certain questions regarding the findings of Berkowitz and his associates, Bryan (1966) administered Berkowitz' instructions to a number of individuals and assessed their responses to a questionnaire. He found evidence for a correlation between the degree of dependency introduced and the extent to which the subject feels that the experimenter is interested in his performance.

Although Schopler and Bateson, and Rosenbaum had provided some evidence for the effect of high dependency on unrewarded helping in a task dissimilar to Berkowitz', the need remained to assess the effects of dependency in situations where demand characteristics were minimized. The relationship between dependency and helping behavior was therefore tested in a naturalistic setting. A male undergraduate, serving as the experimenter's accomplice, attempted to solicit rides from motorists. The experiment was conducted with the accomplice manifesting both a low dependency (LD) condition and a high dependency (HD) condition; in the high dependency condition he wore a bandage around one knee and carried a cane. Under the high dependency condition, significantly

more rides were offered; this supported the prediction that "dependency elicits helping behavior where the likelihood of material reward is remote" (Bryan 1966:11).

The experimental studies surveyed so far have attempted to determine the situational variables that increase the probability of altruistic behavior. That is, they generally hypothesize that one or more variables are important if altruism is to be elicited, and manipulate them in order to assess their effects. In contrast to these studies, which investigate the situational antecedents of aiding behavior, is another group of experiments which concern themselves with the antecedents of those situations in which dangerous or unexpected occurrences are *not* met in a socially responsible manner.

Diffusion of responsibility

Darley and Latané (1966), who are concerned with such events as the Genovese case, have manifested an interest in exploring the situational factors which may serve to explain events of this nature.

Reviewing the available information on the Genovese case, Darley and Latané (1966) noted that although 38 witnesses were present, each of them was in his own apartment; they also pointed out that no communication existed between these apartments. Guided by these observations, these investigators set up a situation where an individual was placed, alone, in a cubicle and told that a certain number of other individuals were similarly located. While he was in such a situation, the need arose for him to extend help to another individual. The results of the experiment indicated that the more observers he believes there are of an incident, the less the aiding response on the part of the individual. The writers conjectured that in such occurrences as the Genovese incident, witnesses may fail to take action largely because they are aware that there are other people present who would be equally responsible ("diffusion of responsibility") and equally to blame ("diffusion of blame") if help were not given in time.

The major criticism of this study is directed toward the assumption that the experimental situation provided an ana-

logue of the Genovese situation. In fact, although 38 witnesses observed the slaying of Kitty Genovese, in no way did they form a group. Unlike the subjects employed by Darley and Latané, the 38 witnesses might not have been aware that any one else was observing the incident at the same time that they were. Nevertheless, Darley and Latané's finding that individual initiative decreases when others are *known* to be present does remain an interesting one.

To test hypotheses regarding diffusion of responsibility and diffusion of blame further, Latané and Darley (1966) designed a second experiment. These investigators noted that there are many instances when, instead of being physically isolated from each other, onlookers face each other. To provide an experimental analogue of such situations, they had the subject sit in a room filling out a questionnaire and, ostensibly, waiting to be called for an interview regarding the college environment. At one point smoke began to jet into the room and continued to do so until either the subject reported it or the smoke completely filled the room. In all cases the subjects reported the smoke more frequently and more quickly when they were alone. The writers concluded that when an individual finds himself in a dangerous situation with a group of others who seem unconcerned, the probability that he will take action is decreased. These results are not surprising, however, since it has been generally known that one interprets signals of disastrous events at least partly on the basis of the behavior of others around him (e.g.. Mack and Baker 1961).

Other studies have supported Latané and Darley's hypothesis that the degree of aiding by individuals is inversely related to group size. Thomas (1959) found that in a state department of public welfare, both the quality of the individual's work and his ethical commitment to the job were augmented as the size of the organizational unit was decreased. Because work in a department of public welfare often involves rapid response with appropriate aid to crisis situations, the setting of Thomas' study was analogous to that employed by Latané and Darley.

Examination of the situations employed in the two studies by Latané and Darley reveals one interesting parallel: al-

though in one study the individuals were isolated from one another, and in the other were facing each other, in neither study was the group a cohesive one.

A number of investigations have shown that group cohesiveness may be an important factor in either stimulating the individual to take action or, on the contrary, inhibiting his behavior. Grinker and Spiegel (1945) wrote that more individual acts of courage and altruism were reported among combat units which were most cohesive and had the highest morale. Marshall (1947) reported that less than 25 per cent of soldiers under fire during the Second World War raised their rifles; he conjectured that most soldiers probably acted in the opposite manner because each man was relatively isolated from his buddies during combat, and this isolation engendered feelings of helplessness (lack of competence) and loneliness. Apparently, it is because the military regards the feeling of identification with the group as important that it "seeks to... (maximize) it by the use of a host of communications devices, up to and including the enormous expense involved in transporting 'mail from home' to isolated areas" (Artiss 1965:8).

A survey of the literature would reveal that group size, in general, does not operate in isolation to impede socially responsible action. An important element is cohesiveness or group morale. In fact, group size appears to operate in a dichotomous fashion: it may be the antecedent of either extreme altruism or extreme self-centeredness, depending on the extent of the subject's identification with the group.

In situations where the subject identifies with a large group, he may exhibit even more willingness to be altruistic than when he is alone (e.g., Artiss 1965; Grinker and Spiegel 1945). Perhaps his identification with the group gives him a concern for the well being of all its members; perhaps an enhanced feeling of competence arises with the knowledge that he has the strength of the group behind him.

On the other hand, the individual who finds himself in a group that has little cohesiveness, and with which he does not identify, may feel both unwilling to take action and incapable of doing so.

Helper's view of the victim

A common notion is that people feel most sympathetic toward the victim who is most innocent and blameless. Recent experimentation, however, has disputed this notion.

Although daily accounts of accidents tend to evoke sympathy for innocent victims, when tragedies have particularly severe consequences, we often wonder what could have been responsible for events of such magnitude. Walster (1966) recently contended, and provided some evidence for the position, that the more serious the consequences of an individual's actions, the greater is his need to blame someone else for them.

Guided by insights of this nature, Lerner and his associates have begun to develop both a body of experimentation and a theoretical explanation for such behavior. To explain Walster's (1966) results, Lerner (1966) has conjectured that when the consequences of an action are particularly severe to an individual, we need to feel that there is someone responsible for the whole thing in order to maintain a belief in a "just universe"—one in which severe danger can be averted. Lerner's evidence tends to support his hypothesis.

Whereas Walster has found that subjects tend to assign blame to the victim where an accident is most severe, Lerner has investigated the form in which such blame is manifested in different situations. Together with Simmons, Lerner demonstrated that an unfavorable outcome in a task is most typically attributed by onlookers to errors on the part of the victim. In certain cases, observers tend to reject or devalue the victim as well (Lerner and Simmons 1966). In their experiment, female subjects watched a peer, engaged in a paired-associates learning task, receive electric shocks for making errors. When they learned that they would subsequently be watching a similar session with the same individual—and that they could in no way alter the course of events—they devalued her. Rejection and devaluation, it must be noted, were greatest in the "martyr" condition, where the subjects were led to believe that a peer was suffering shock so that they could get credit for participation in the experiment.

Perceptions of guilt by the helper

The greatest part of the work on charitable behavior deals with the degree to which an individual will rectify a situation he did not create. Several experiments, however, have recently been performed on the individual's behavior when he perceives himself as either directly or indirectly responsible for the fate of a peer.

The proposition that individuals will be more likely to aid others if they feel responsibility for the fate of the latter has recently been supported by Darlington and Macker's (1966) study. A group of 12 experimental subjects were led to believe that they had harmed another person. When they were subsequently asked to donate blood—an opportunity for altruistic behavior—the number of experimental subjects volunteering was significantly greater than the number of control subjects.

In contrast to this finding is Lerner and Matthews' (1967) finding that individuals who are led to believe that they are in any way responsible for the suffering of a peer will tend to justify their own behavior by devaluing the peer.

These apparently contradictory results can be reconciled if we refer to the work done by Walster and Berscheid (1966). These writers challenge both sets of findings; according to them, neither compensation nor justification is the *only* recourse available to the harmdoer in naturalistic settings.

Walster and Berscheid are currently continuing to investigate the conditions under which justification and compensation are elicited, reasoning that in any particular situation one or the other behavior is selected on account of a variety of factors. That is, depending on certain eliciting conditions, the harmdoer may choose either to help his victim or devalue him. The two factors thus far isolated are 1) the amount of compensation available, and 2) the amount of time since the harm was perpetrated.

With regard to the amount of compensation, Berscheid and Walster (1966) have demonstrated that individuals will most likely compensate their victims if they are given the opportunity to give aid that is exactly proportionate to the damage done. However, if the resources available are either exces-

sive or inadequate, help becomes less likely. With regard to
the time period, the longer the time between the perpetration
of the harm and the first opportunity to compensate the vic-
tim, the less likely it is for the subject to offer compensation
of any kind. Berscheid and Walster interpret this finding in
the following manner: A greater time lapse provides the op-
portunity for the harmdoer to justify himself. Assuming that
justification and compensation are mutually exclusive modes
of behavior, then the greater the degree of justification, the
lower the probability of compensatory behavior.

While experimental work on aiding ¯ .sponses is still in its
infancy, some fruitful investigations have been conducted. Al-
though most of the investigations deal with the elicitation of
self-sacrifice, two experiments—those of Aronfreed and Paskal
(1965), and Midlarsky and Bryan (in press)—have recently
shed light upon the development of altruism in children.

Most of the experiments performed explore the antecedents
of helping behavior in a variety of situations. These studies
have generally assessed the effects of such variables as model-
ing, the norms of reciprocity and social responsibility, and the
effects of dependency.

Another segment of the experimental work consists of in-
vestigations of the effect of group size upon the aiding re-
sponses of the individual, particularly in situations where group
expectations or norms seem not to require active intervention.
Investigators in this area (e.g., Darley and Latané 1966; La-
tané and Darley 1966) conclude that the resulting diffusion
of responsibility and blame throughout the group is respon-
sible for the failure to aid the victim.

Other investigators have concerned themselves with the
effects of the individual's perceptions upon his aiding responses.
They have found that both the potential helper's view of the
victim and his considering himself responsible for the victim's
plight affect the amount of aid he would offer.

Methodological Considerations

The variety of approaches to the problem of altruism has
served to enrich the ongoing program of investigation. Exam-

ination of the studies performed thus far provides the reader
with insights into what may be the most relevant variables in
altruistic behavior. On the other hand, the existence of differ-
ences, which have cropped up before the phenomenon has been
fully comprehended, has introduced problems of interpreta-
tion.

Perhaps the greatest difficulty one encounters in studying
these investigations stems from their lack of comparability.
The sources of this difficulty seem to be the following: dif-
ferences in sampling procedures and types of setting em-
ployed, and variations in dependent measures.

Sampling procedures

The subjects chosen for experiments have varied with re-
spect to such factors as age, sex, and social class. With regard
to the helper's view of the victim, the contrasting results ob-
tained by Sawyer (1966) and Wright (1942) might have been
at least partly due to differences in the age ranges employed.
In addition, variations in the results of experiments on the
effects of social class upon aiding (cf. London and Hemphill
1965; Ugurel Semin 1952) may be attributable to differential
sampling with regard to age.

Acting under the assumption that the middle class is ho-
mogeneous, a number of investigators have employed subjects
from this group. However, recent findings by Berkowitz and
Friedman (1966) have indicated that the middle class itself
may consist of two groups with opposing norms of "social ex-
change." Thus, assumptions of homogeneity cannot readily
be made, and future work must take findings like those of
Berkowitz and Friedman into account. Similar problems of
interpretation have arisen with regard to differences in the sex
of the subject (e.g., Berkowitz, Klanderman, and Harris 1964).

Types of setting employed

While settings for the investigation of altruism have var-
ied widely, the two major types are the naturalistic setting
and the experimental laboratory.

The naturalistic setting

A large variety of naturalistic settings have been employed

in the study of altruism. These include the community (e.g.. Sorokin 1950), the community-in-disaster (e.g., Wallace 1956), and the classroom (Hartshorne and May 1929).

The experimental laboratory

Although independent variables can be controlled more rigorously in the laboratory than in the field, the employment of the former setting introduces an additional source of error variance in the form of "demand characteristics" (Orne 1962). Recently there have been attempts to apply controls to demand characteristics; that is, the experimental setting has been made to approximate comparable naturalistic settings (e.g., Test 1966). However, even when such controls are applied, there remains the possibility that sources of variation among studies may be due to factors specific to a given laboratory situation.

Variations in dependent measures

Sharing what is "one's own"

A variety of operational referents of altruism have been employed. In a number of studies, usually those set in natural surroundings, the dependent variable involves the contribution of help in the form of either money or some kind of service. Examples include a variety of behaviors which may conceivably represent a range rather than a single level of cost to the individual. Offering to help change a tire (Bryan and Test 1966) and donating money (Blake, Rosenbaum, and Duryea 1965) are among these instances of sharing.

Sharing what is not "one's own"

Other investigations, usually those made in a laboratory setting, require the donation of help that may actually entail low cost to the giver. The low cost to the giver may spring from his lack of a sense of proprietorship over that which he is donating. For example, the study by Midlarsky and Bryan (in press) employed a child's donation of candy he received a few moments before. It is quite possible that on account of the short interval between receiving and giving, the child had not yet acquired a sense of proprietorship over the candy

as great as that which individuals generally have over possessions earned in other settings

Similarly. although two studies (Berkowitz and Daniels 1963; Daniels and Berkowitz 1963) have discovered that individuals may be induced to donate time and effort to aid a dependent peer, the necessary increment over the effort that is *already* being devoted may not actually represent a ignificant increase in cost.

Sharing of risk or pain

The two sets of operational referents discussed above are both representative of that form of aiding behavior which involves a "sharing of the wealth." A second, and possibly a quite distinct, form of aiding involves what may be termed a "sharing of risk or pain." That is, there exists a variety of situations where the giving of help requires that the giver accept a certain degree of risk or even pain to ease or prevent the suffering of another. Instances of these situations abound in the literature concerned with disasters (e.g., Pepitone. Diggory, and Wallace 1955; Form and Nosow 1958). While few studies have dealt with those manifestations of aiding behavior that require risk to the individual, it is quite conceivable that the mechanisms involved in eliciting them differ significantly from those related to a "sharing of the wealth."

Criteria for the Investigation of Altruism

An important criterion for judging the adequacy of a body of research is its heuristic value. Unfortunately, the lack of adequate guidelines for future research in the literature may tend to discourage further systematic investigation of the nature of altruism. For this reason, suggestions will be made as to what guidelines may be adopted in the future study of the phenomenon.

Although "altruism" and "aiding" have generally been used interchangeably, these terms may serve to denote distinct forms of behavior. "Aiding" is a general term that refers to all behaviors in which one individual comes to the assistance of another who is in distress; these behaviors may involve either a "sharing of the wealth" or a "sharing of risk or pain."

"Altruism," on the other hand, is a subcategory of aiding and may be defined as such

It seems necessary at this point to specify the minimum conditions necessary for a study to be qualified as a valid investigation of altruism. As a first effort in this direction, it is suggested that among the criteria of an "altruistic" act we include the following:

1) *The degree of gain to the individual.* Gain, if it exists, must be disproportionately small in relation to the investment. A doctor who chooses to treat the poor may obtain a certain degree of internal satisfaction; however, he will not receive the status and financial remuneration that come with treating the wealthy.

2) *The degree to which there is actual cost to the individual.* Something "costly" in one situation may not be costly in another. For instance, in the context of the experimental setting, "time" and "effort" devoted to helping another may not at all outweigh the effects of "demand characteristics." On the other hand, accepting electric shock to enable someone else to escape it may be costly in most situations.

3) *The degree to which an act is prescribed*, whether by an individual's "role" in naturalistic settings, or as a result of "demand characteristics" in an experimental setting. If an act is required, then it is not to be considered altruistic, even if the cost to the individual is high.

4) *The degree to which alternative acts are available.* The individual's manifestation of aiding responses should not be considered altruistic if he has no choice but to act in this manner. The individual should have the option of performing an act which does not serve to aid others, or he should have recourse to doing nothing. Any alternative act must involve a cost to the individual not greater than that entailed by a helpful act.

While the future scientific study of altruism requires theoretical guidelines of the type outlined above, the investigation of the broader category of aiding need not adhere to such criteria. In fact, a better comprehension of the nature of both aiding and altruism might be gained if we were to ex-

plore *all* factors that serve to elicit helpfulness—both those inducing intrinsic motivation and those providing extrinsic motivation.

The major interest of this writer is the investigation of those variables—such as dependency, modeling, and competence—which apparently induce the intrinsic desire to sacrifice for the sake of others. Of complementary interest, however, are questions on the nature and extent of extrinsic motivation —in the form of obvious material gain—that must be provided in order to elicit a similar amount of aiding in the same type of situation. For example, the studies of Berkowitz and his associates on the effects of dependency upon aiding may be replicated in an investigation designed to assess the amount of money needed to induce the same degree of aiding.

Another approach to the study of how aiding is elicited may involve the study of how aiding may best be prevented. There exists a variety of situations where aiding may actually be the more frequent response. For instance, there may arise a situation where an obviously worthy cause is badly in need of financial aid, and there is present an individual who can well afford to provide this aid. Or there may be an urgent call for blood of a certain type, and there is one person on hand who is known to have that type of blood. In instances of this type, it may be of interest to know how unpleasant the appeal or the conditions to be undergone must be made before the donor is no longer willing to help.

In summary, the criteria presented here may serve as theoretical guidelines for the study of altruism. Without such a perspective, we may risk initiating uncoordinated efforts that will yield little by way of systematic progress.

Also presented here are suggestions for the study of aiding, which is a broader and more inclusive category. Questions concerning aiding may be conceived as being of two major kinds: 1) those dealing with the nature and extent of the gain—whether intrinsic or extrinsic—needed to induce aiding at different levels of cost to the individual, and 2) those dealing with the nature and extent of obstacles necessary to prevent aiding in situations where such a behavior is the natural or most frequent response.

Conclusion

Naturalistic studies provide some evidence for the existence of altruism as a phenomenon. However, naturalistic data, due to their very nature, do not lend themselves to rigorous processes of investigation. Correlational studies are closer to the ideal since they provide evidence supporting or contradicting hypothesized relationships, as well as suggest propositions that may be tested in the future.

Although many of the results remain either tentative or contradictory, some intriguing findings are available on the relationship between aiding and the following: competence, fatalism, and interpersonal perceptions.

The closest approximation to absolute rigor is the experimental study. However, contradictory results have also been obtained in studies of this nature. Nevertheless, due to the controlled nature of the experimental setting, conclusions of experimental studies have been more clearly substantiated than those of either correlational or naturalistic studies. Some of the variables discovered to bear a significant relationship to charitable behavior are modeling, dependency, and the size of the group confronted with a situation calling for socially responsible action.

Because of the tentative and contradictory nature of many of the data, methodological considerations are extremely important. Lack of comparability among studies is probably due to variations in 1) sampling procedures, 2) types of setting employed, and 3) dependent variables.

Suggestions are presented concerning future research on altruism, and minimum conditions are specified for a study to be considered a valid investigation of altruism.

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Cognitive Mapping in the Tagalog Area (II)*

Ronald S. Himes

In an earlier essay, Lynch and I (1967) described the background, theoretical approach, methods, and goals of this study. We also discussed some initial findings in the domains of kinship and disease. As stated in that paper, the major objective of the research is to discover how Tagalog Filipinos differ among themselves in their thinking about these domains, and with what identifiable background characteristics any such differences may be associated. A subordinate goal is to find out if similar variations characterize the way mother-tongue speakers of Tagalog interact with kinsmen and non-kinsmen.

The approach employed is that of ethnoscience, a recently developed branch of anthropology which aims at a rigorous description and analysis of cultural data through the use of techniques adapted from linguistics and psycholinguistics. From the very beginning of our study, two techniques were found to be very productive for the study of both kinship and disease concepts. These were 1) the listing of items in free recall, and 2) several kinds of sorting test.[1] For the domain of disease, moreover, the depth interview was used to establish how the informant described the diseases he recalled, what he thought caused these diseases, and how he thought they should be treated. Careful use of these and other techniques led to the conclusion that there are indeed significant

[1] These techniques are described in Lynch and Himes 1967: 17-27. The Tagalog and English interview schedules for both kinship and disease data are entered as Appendices B and D in the same source.

Figure 1.   Map of the Philippines showing the location of Bulacan '

differences among Tagalog-speaking Filipinos in their perception and treatment of at least two segments of their cultural world, namely, kinship and disease.

In the period since the publication of the first technical report (Lynch and Himes 1967), we have done no further research in the disease domain. However, we have advanced in the area of kinship. Now being used in addition to the tried and proven listings and sorts mentioned above is a household composition schedule which enables us to determine the spatial proximity of kinsmen, the marriage and residence bonds that exist, and the sources of household income. Still untested at this writing is a new and simplified interaction schedule developed from the original form used to collect data in the Bikol region some years ago. It is expected that this new schedule will be in use in our Tagalog-speaking communities by late August 1967.

Recent Findings

Research done since the last report has shed light on three aspects of kinship in the Tagalog area: 1) the distribution of kin terms in that area, 2) the components of the kin terms commonly used in the Greater Manila region, and) individual differences in kin-term usage. I will first discuss what we have discovered about each of these subjects, and then present the conclusions suggested by these findings.

Distribution of kin terms in the Tagalog area

Since the beginning of the project, staff members have conducted interviews for the prompted recall of kin terms. Those interviewed are informants who are either natives of a Tagalog-speaking community or born of such a native. Whenever possible. the sessions are held in the community itself.

At this writing, we have reliable data from 116 communities: these represent all provinces in the Tagalog area. Although the information is not sufficient for the construction of precise isoglosses. or word maps, some generalizations may be drawn from it. Thus. one well-defined region of kin-term usage is that of Greater Manila (Region I). Here, the most commonly used terms are those found in the list with which
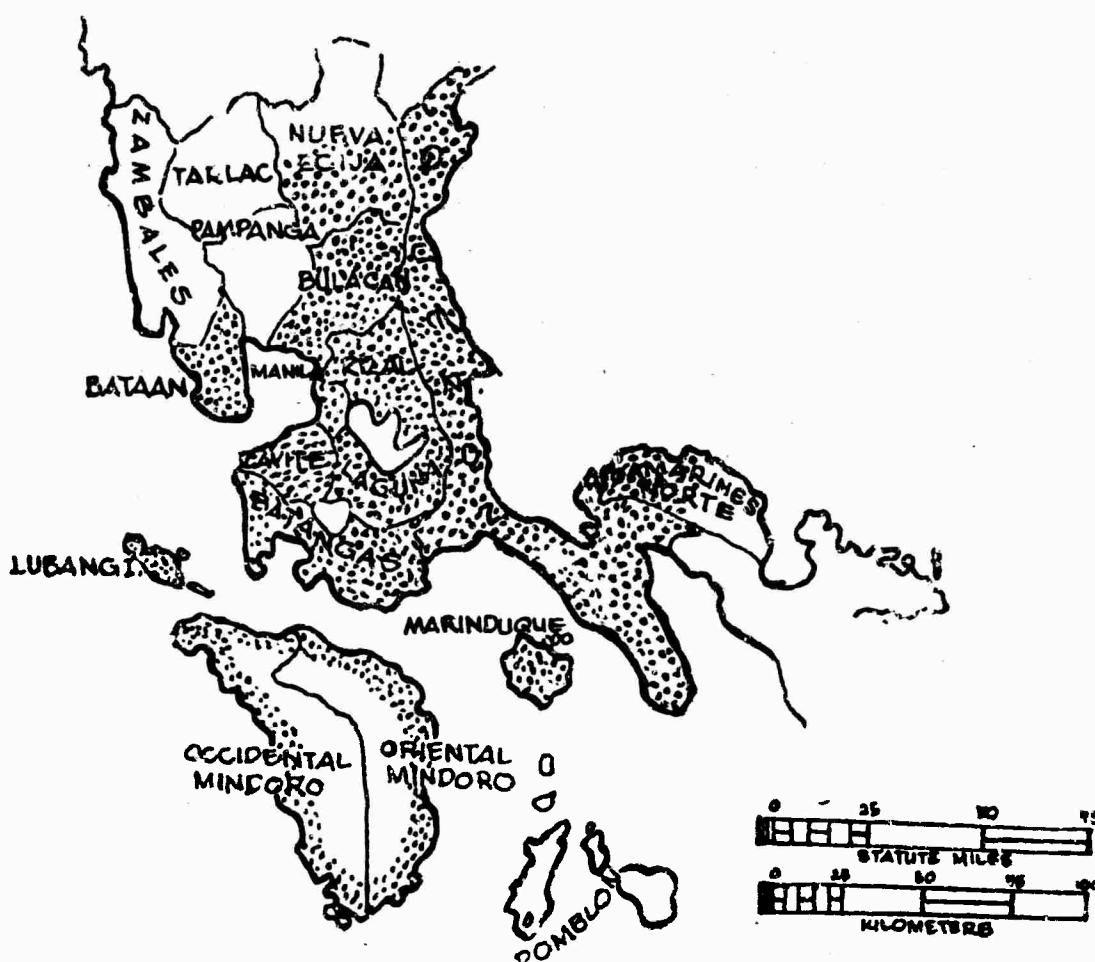
Figure 2.   The Tagalog area (dotted).[3]

respondents for sorting are furnished (see Appendix A).   Th·
only exception to this is a preference for *tatay* and *nanay*,
'father' and 'mother,' instead of the *amá* and *iná* in our list.

Another zone (Region II) includes Bataan, northern Ca-
vite, western Rizal, eastern and northern Bulacan, and south-
ern Nueva Ecija.   The age grading among elder siblings found
throughout this area and tl e preference for the grandparent
terms *ingkóng* and *impó* suggest a marked Chinese influence.
Generally, wherever the graded elder sibling terms exist, the
structurally elder sibling-in-law terms are found as well:
siyaho, 'elder sister's husband'; *insó*, 'elder brother's wife.'

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[3] This map (except for the scale) is patterned after the map of
the Philippines appearing in: Caltex Motorway Maps.   Caltex Philip-
pines, Inc., undated.

The southern Tagalog zone (Region III) includes Batangas, southern Laguna, and the part of southwestern Quezon contiguous to Batangas. This area is characterized by its peculiar kin vocabulary and by the extension of the two elder sibling terms, *kuya* and *ate*, to first cousins who are the children of one's parent's elder sibling.

Outside the territory of these three regions, but still within the Tagalog-speaking area, there are many places which employ distinctive kin terms. The structural distinctions recognized among kinsmen, however, do not differ significantly from those of the Manila system.

In short, there appear to be three well-defined regions, all within the Tagalog area, which are distinguished both by kin vocabulary and by concomitant structural distinctions. Tagalog communities not belonging to these regions generally contain the same kin-term distinctions as those found in the Manila area, although the preferred terms themselves may differ considerably.[4]

Components of the common Greater Manila terms

Componential analysis is an analytical technique by which terms of any cognitive domain are arranged in their relation to each other according to definitions consisting of a fixed number of components.[5] Cryptic though this description may appear at first reading, it is easily explained by an illustration involving a small number of terms and just two components. Consider, for example, these four terms: turkey, peacock, parrot, and sparrow. To define them in relation to one another, we use just two components; namely, habitat and color, each component having two mutually exclusive levels, or forms, as follows:

A. habitat: a_1 ground-dwelling
              a_2 tree-dwelling

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[4] The kin-term system characteristic of Manila is contained in our list of furnished terms (Appendix A). Examples of systems from Regions II and III are given in Appendix B.

[5] For a clear description of the procedures to be followed in performing a componential analysis of kinship terminology, see Wallace and Atkins 1960:59-63.

B. color: b_1 brightly-colored

              b_2 not brightly-colored

The componential definitions of the terms are, then, the following:

turkey $a_1 b_2$

peacock $a_1 b_1$

parrot $a_2 b_1$

sparrow $a_2 b_2$

The terms may be arranged in a paradigm, or diagram of their participation of these components:

a_1	peacock	turkey
a_2	parrot	sparrow
	b_1	b_2

There is usually more than one possible componential analysis for any lexical population. In our example, for instance, the components may be defined differently. "Geographical distribution" can replace "color" (B). With this substitution made, we would make b_1 stand for "tropical regions" and b_2 for "temperate regions." What is asked of a componential analysis is this: that it be economical and account for all the data. Both of the above analyses are economical in that they use only two components, the minimum acceptable number. Moreover, both account for all the data. If the lexical population were larger, however, the components would probably be insufficient. Thus the components used to define a population of 100 different birds from various parts of the world might approximate the criteria used in the typical ornithological taxonomy.

Componential analysis is a useful technique for the analysis of all lexical domains, or groups of words suspected to be somehow related in meaning. The semantic relatedness of the four items in the illustration above can be demonstrated by their insertion in the testing frame: The

is a kind of bird, wherein "kind of bird" is the operative, or delineating, phrase. A native speaker of English must reject the glosses (words) "cow," "butterfly," "shark" because they are kinds of things other than bird. In addition, he must reject "feather," "wing," and "drumstick" because they are parts of birds rather than kinds of bird.

Kinship terms constitute a recognizable lexical and semantic domain in Tagalog (see Lynch and Himes 1967:22-25). Of all reference kin terms in Tagalog, the largest number of terms state a relationship between the speaker and the kinsman referred to; that is, they are egocentric kin terms, and they fit the frame: *Siya'y ang aking _____ _____* (He or she is my _____ _____). In Greater Manila these number 26 (see Appendix A). They can be analyzed, in relation to each other, through the use of only six components: consanguinity, generation, degree, structural age, reciprocity, and sex.[6]

Consanguinity

There are three "kinds" of relationship to Ego represented by the 26 terms in the furnished list: consanguineal, affinal, and ritual. Ritual terms are clearly separated from the other two kinds. There is some overlapping, however, between the consanguineal and affinal categories, notably on six terms: *lolo, lola, apó, tiyo, tiya, pamangkin.* The primary meanings informants assign the latter three terms are, respectively, 'uncle,' 'aunt,' 'nephew/niece.' As in the American kinship system, 'uncle' designates more than a parent's brother; it may denote a parent's sister's husband as well. This is an affinal relationship. Similarly, a nephew or niece may be a spouse's sibling's child as well as Ego's own sibling's child. All six terms enjoy indefinite lateral extension. Lolo, for example. is used to name a grandparent's brother and a grandparent's male cousin (of any degree) and not merely one's grandfather. The wife of the collateral lolo ('great-uncle') is referred to and addressed as lola: this is an affinal relationship ('great-aunt by marriage').

___

[6] The componential definitions of the terms are listed in Appendix C.

Generation removed from Ego

This component has three dimensions: two generations removed from Ego ($G^{\pm 2}$), one generation removed from Ego ($G^{\pm 1}$), and Ego's generation (G^0). A term is applicable to a single generation; there is no overlap in a term's denotata when measured by this component.

Degree of relationship

Three degrees of relationship are necessary to the analysis. They may be termed "close," "intermediate," and "distant" for the sake of convenience.

For consanguineal kinsmen, close means lineal; a lineal kinsman is one whose relationship to Ego can be traced solely through parent-child links. Collateral kinsmen are those whose relationship to Ego is neither directly ancestral nor directly descendant. The degree of collaterality is determined by the minimal number of parent-child links between Ego or the referent and their common ancestor. 'Sibling' is a first degree collateral term since there is only one parent-child link from both Ego and the referent to the common ancestor, a parent. 'Uncle' is also of first degree collaterality since the links to the common ancestor number two for Ego but only one for the referent. 'Cousin' is a collateral term of second degree or more since there are at least two parent-child links from Ego and the referent to the common ancestor, a grandparent. Terms of first degree collaterality are here considered intermediate, and those of second degree and beyond are considered distant.

Degrees of affinity are reckoned by the directness of the relationship and the number of marriage links between Ego and the referent. The only direct affinal kin term is 'spouse'; this is taken to be the only close affinal relationship. Intermediate affinal kin terms represent relationships to Ego traced through one marriage link. A distant affinal relationship contains two marriage links between Ego and the referent.

Close ritual kinsmen are those who must participate in the rite which creates the following relationship: 'godfather,' 'godmother,' and 'godchild.' *Kumpadre* and *kumadre* are here considered intermediate ritual kin terms since, although

the relationships they denote are created by the rite at the time that it is performed, it is not the purpose of the rite to create them. *Kinákapatíd*, on the other hand, is taken to be a distant ritual kin term since one's 'godsibling' need not even have been born when the causative rite was performed.

Structural age

Terms equally defined in consanguinity, generation of removal from Ego, and degree of relationship are separated from each other by structural age. Most often this criterion separates a generationally senior term from a junior one, such as 'parent-in-law' from 'child-in-law.' On Ego's generational level it separates an elder sibling term from a younger sibling term;[7] the determinant of application at this level is the biological age of one sibling in relation to another. At a generational level removed from Ego's, however, the relative biological ages of the kinsmen do not strictly determine structural age. For example, it is conceivable that an 'uncle' be younger than Ego, or that a 'nephew' be older.

Reciprocity

This criterion is measured along three dimensions. The first consists of those terms which are completely self-reciprocal: *pinsan, bilás, balae, asawa,* kinákapatíd; Ego is 'spouse' to his spouse, 'cousin' to his cousin, and so forth. The two sets, *bayáw-hipag* and kumpadre-kumadre, are partially self-reciprocal. If Ego and the referent are of the same sex, then the term by which one refers to the other is self-reciprocal. If the relationship is one of mixed sex, then the terms are sex-reci-

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[7] *Kapatíd* is equivalent to 'sibling.' There is no simple gloss for 'younger sibling.' Compare the Tagalog and Kapampangan patterns:

Tagalog				Kapampangan		
kapatíd ('sibling')				*kapatád* ('sibling')		
elder		younger		elder		younger
male	female			male	female	
kuya ('elder brother')	ate ('elder sister')	—		*koya* ('elder brother')	*atsi* ('elder sister')	*wali* ('younger sibling')

procals. The remainder of the terms are not self-reciprocal; that is, Ego is always referred to by a term different from the one he uses for the referent. Ego is lolo to his apó, *manugang* to his *biyenán* and so on.

Sex

The last component needed for the analysis is the referent's sex. When two kin terms are identical except that one refers only to males and the other only to females, the sex of the referent is said to be significant. There are seven exclusively male terms and seven which are exclusively female. The sex of the referent is not a significant feature of the remaining twelve terms.

In the paradigm (Figure 3), a broken horizontal line indicates a distinction in structural age; the structurally senior term is written above the line, the junior term below. A broken vertical line indicates a distinction in the sex of the referent; the male term is written to the left of the line, the female term to the right.

Individual differences in kin-term usage

Theoretical value of the analysis

It has been claimed that the anthropologist's analysis isolates and describes the components actually used by the culture bearer, if indeed the analysis is economical and comprehensive. This is the claim for the "psychological validity" of componential analysis. It has been proposed most clearly by Anthony F. C. Wallace (1965). This claim has been both condemned (Burling 1964) and defended (Hymes 1964: Frake 1964), criticized (Hammer 1966) and supported (Romney and D'Andrade 1964), but it has neither been proved nor refuted. Nor is it likely to be. I feel that the verbal contest has itself been characterized by the ethnocentricity of bipolar thinkers. The notion of polarized truth is explicit in the title of Burling's (1964) article. "Cognition and componential analysis: God's truth or hocus-pocus?" Since the publication of that article. defenders of psychological validity have argued in the same black-and-white terms used by the critics: the analysis either ..as it or it doesn't.

kinákapatíd

kumadre

kumpadre

ninong ninang

inéanák

asawa

hipag

bayáw

balae

bilás

pinsan

ate

kuya

kapatíd

lola

biyenán

manugang

lolo

tiya

tiyo

pamangkín

apó

amá iná

anák

EGO
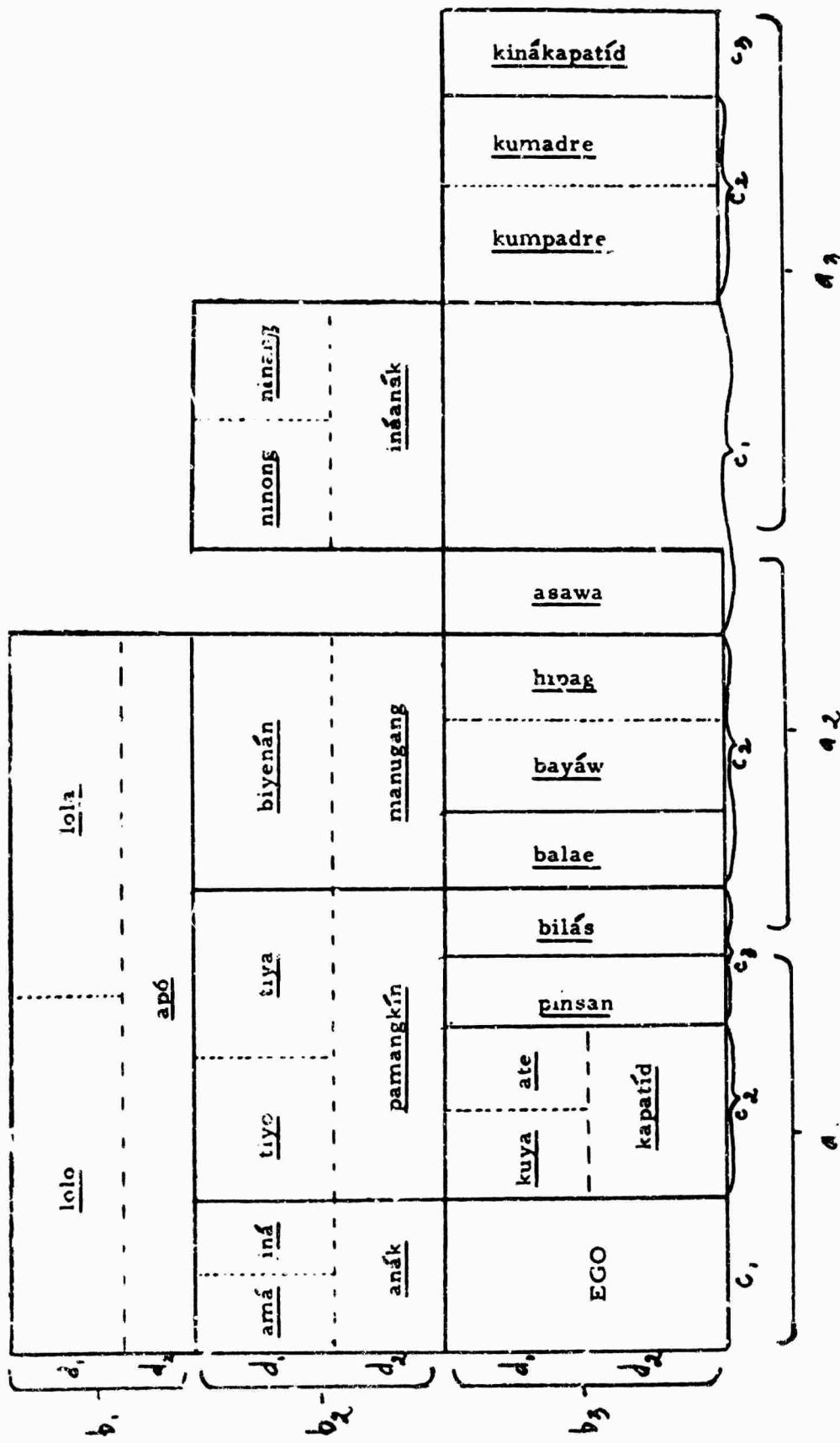
Figure 3. Paradigm of the Tagalog kin terms used in the furnished list.

Hammer side-stepped the issue by proposing that there
are two kinds of truth, psychological and structural. The first,
while desirable, is beyond the realm of anthropology. The sec-
ond is more practical. A componential analysis is structural-
ly valid if it is comprehensive and economical; that is, if it pro-
vides the knowledge necessary for us to think and talk about
the cognitive-lexical domain in question in a manner accept-
able to members of the culture. No claim is made for the
sharing of the analytical components by native and anthro-
pologist.

I feel that there is no basic difference between these two
kinds of validity. The only distinctive criterion separating
them is our ignorance of whether or not the analyst's com-
ponents are shared by the informant. The structuralists have
made a case for continuing studies in componential analysis
on the basis of their utility alone. This demand is certainly
acceptable.

Nevertheless, something has apparently been missed by
both factions in this encounter. Informants, even in a small,
socioeconomically homogeneous community, may and often
do differ among themselves in the criteria they use in treating
the same cognitive-lexical domain. Further, it may be true
that a single informant at different times uses different com-
ponents in dealing with the same material.

The setting

Before attempting to validate these impressions, I will
describe briefly the community in which our kinship investi-
gation is being conducted.

Marilao is a municipality in eastern Bulacan, approxi-
mately 23 kilometers north of Manila. Within Marilao three
communities are being studied: the town proper, called Pobla-
cion; a contiguous barrio, Tabing Ilog ('Riverside'); and a
noncontiguous barrio, Loma de Gato ('Cat Hill'). The inves-
tigation begins in the latter community and progresses west-
ward to the Poblacion (see map. Figure 5).

Loma de Gato contains a nearly homogeneous farming
population of approximately 900 persons in 122 households.
There is no irrigation in Loma, and only wet rice is grown. As
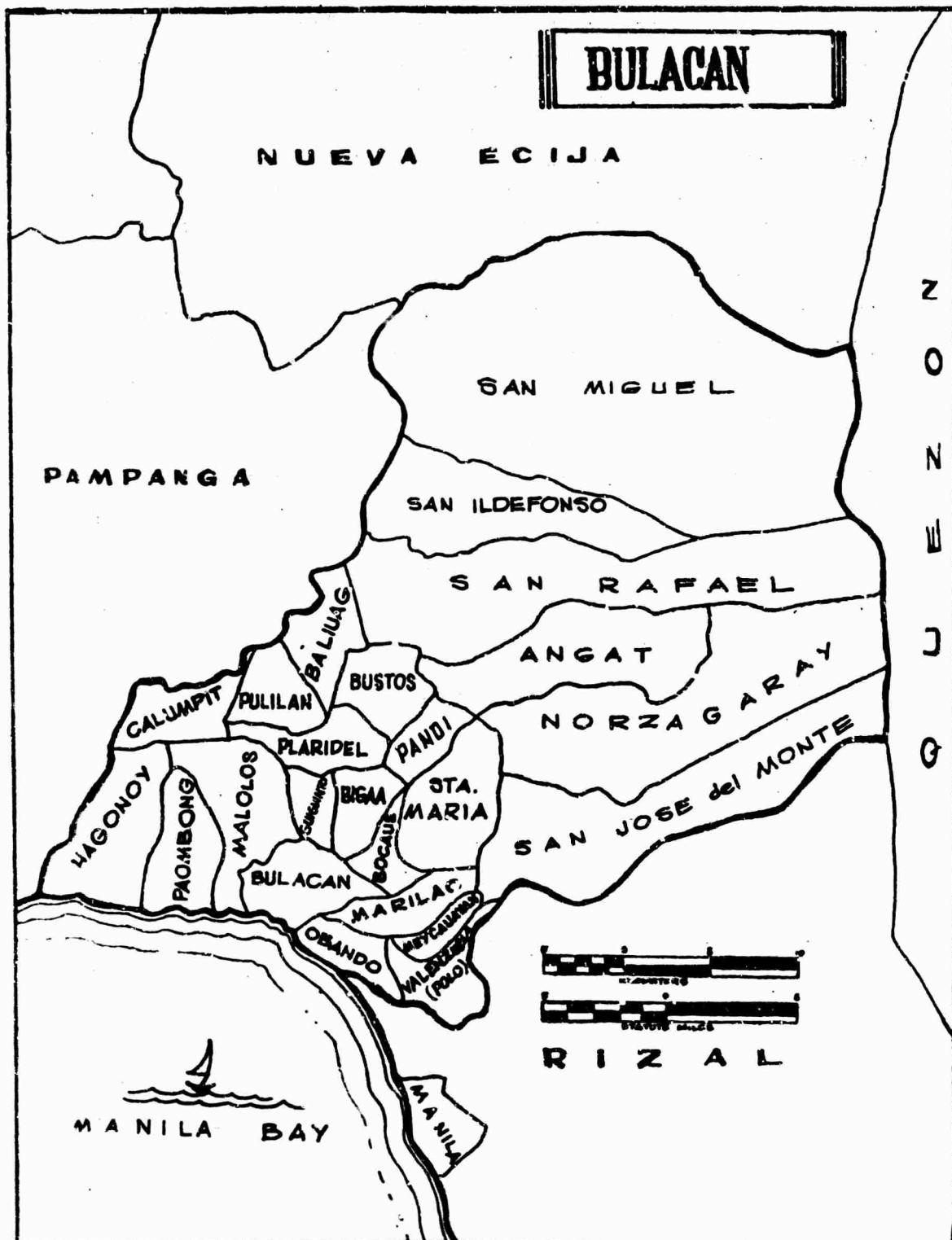
Figure 4. Map of Bulacan.[*]

a result, there is only one crop per year. The barrio is linked
to the town proper by seven kilometers of dirt road passing
through barrios Tabing Ilog, Patubig, Santa Rosa, and Prenza.
Apart from the few whose occupations demand otherwise (e.g.,
jeep drivers, market vendors), people in Loma rarely go to
the Poblacion more often than once or twice a week. Trips
to Manila average once every six to nine months per adult.

Tabing Ilog and Poblacion, in contrast, are suburban to
Manila. Farming is not the primary occupation of the popula-
tion. Instead, artisans, businessmen, laborers, professionals,
and vendors of all types either work within the community or
commute daily to Manila. Public transportation is available
at all times of the day between Marilao and Manila via Mac-
Arthur Highway and Caloocan City. A new highway, the
North Diversion Road, is under construction and is partially
complete as far as Marilao. Public transportation is not avail-
able on this road. Tabing Ilog contains · ulation of about
880 persons living in 145 households, w¹ ʳoblacion's approx-
imately 2300 residents are in 365 hou.. .olds.

Electricity, telephone and telegraph service, and newspa-
per and periodical delivery are available to residents of Pobla-
cion and Tabing Ilog. This is not true of Loma de Gato, where
the only commercial source of outside information is the tran-
sistor radio.

Concerning our investigation, Marilao offers several ad-
vantages. Its location in eastern Bulacan places Marilao with-
in kin-term Region II, geographically the most widespread of
the three. The kinship terminology of this region is the most
complex because of its relatively large number of terms and
the accompanying large number of structural distinctions.
Once an analysis of this system is completed, the task of devis-
ing transformation procedures for the description and analysis
of simpler systems will be an easy one.

Another asset offered by Marilao is the distribution of
medical personnel within the community. Loma de Gato does
not have a health clinic. As far as we know, there is one *arbu-
lariyo* (<Sp. *herbolario*), or traditional herbalist. Although
he does not charge a fixed fee for his services, patients usu-
ally give him gifts of farm produce when they can best afford
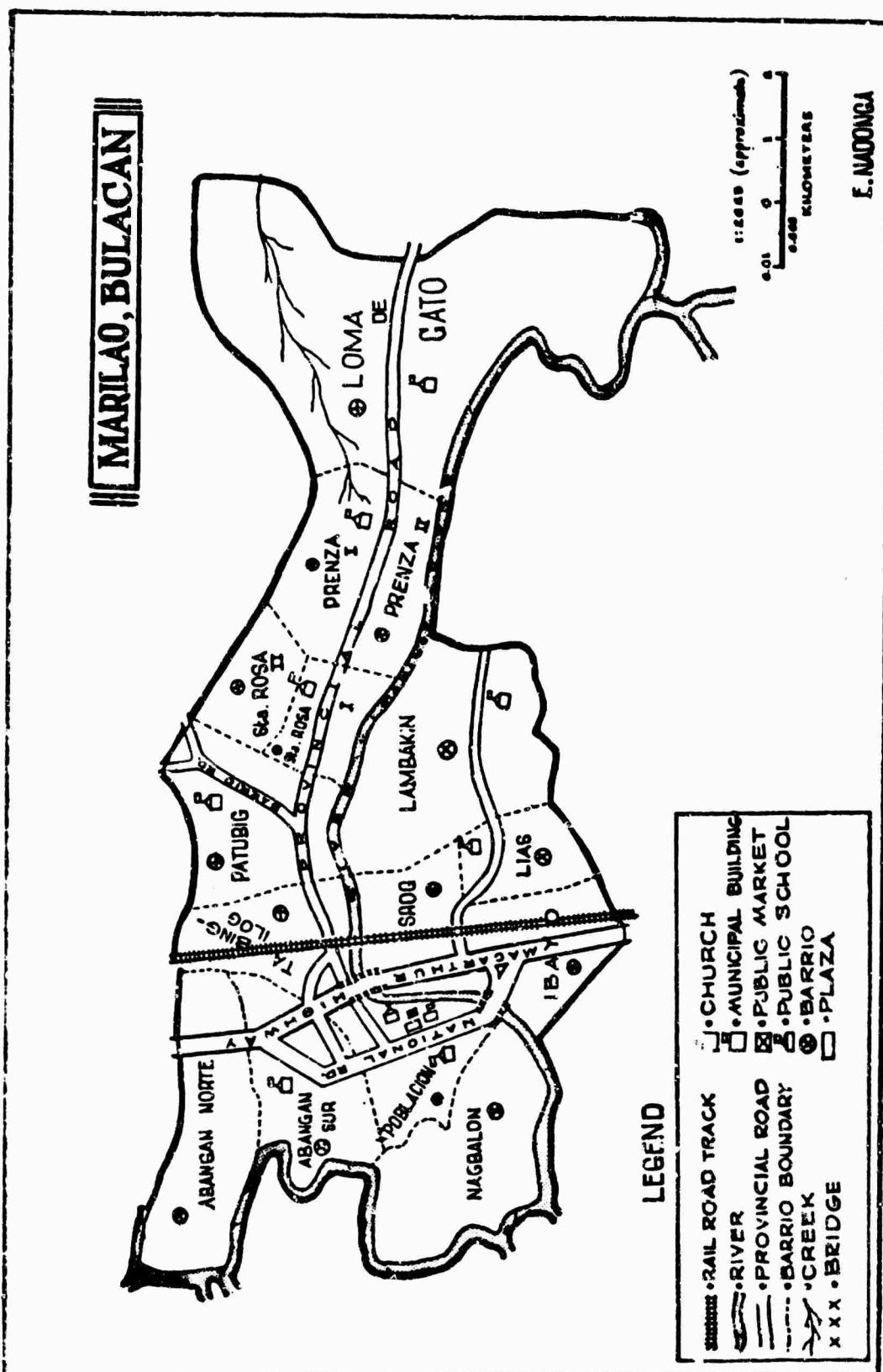
Figure 5. Map of Marilao, Bulacan.

it. There is one woman training for midwifery under a supervisor in another barrio. A registered nurse employed in a Manila hospital also resides in Loma.

In Poblacion there is a public medical clinic in the municipal building; in addition, several doctors, dentists, and nurses maintain private practice. Midwives, both of traditional (*hilot*) and Western practice (*komadrona*), herbalists, and "healers" (*manghihilot*[9]) practice in both Poblacion and Tabing Ilog. Residents of the town and its neighboring barrios, then, enjoy ready access to medical personnel of two diverse traditions. This, it is felt, makes Marilao a potentially fruitful site for an investigation of the disease domain.

Kinship terminology

At this writing, the following interviews have been completed in Loma de Gato: household census, personal data of household heads, listing of referential kin terms in free recall, multilevel sort of the recalled terms, and a single sort of the furnished terms.

A problem that has arisen with regard to the recalled terms is that of synonymy, or the applicability of more than one term to a single kin type, such as 'father,' 'uncle,' 'grandmother.' In this community, for example, ingkóng and lolo are synonyms; they both mean 'grandfather,' 'grandparent's brother,' 'grandparent's sister's husband,' 'grandparent's male cousin,' 'grandparent's female cousin's husband,' 'great-grandfather,' and all great-grandparents' male collaterals.

Recognizable cognates, such as balae and *kabalae*, tiyo and *tiyuhin*, are not considered synonyms but rather two (or more) forms of a single word which are in free variation.

It often happens that informants, who are free to mention the kin terms as they recall them, mention more than one term for a given kin type. Some of these recalled terms are not common to the rest of the community. They represent a choice between (or among) alternatives, as demonstrated by an informant's listing both a local term and its nonlocal synonym, or by his using a nonrecalled term in defining those he recalled.

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[9] Often translated 'lame-healers' by informants.

In some cases, a nonlocal term is more common to some other part of the Tagalog area, such as Greater Manila. In other cases, a word may be accepted by Tagalog speakers everywhere, although it is usually not preferred in common usage. Our informants use these words primarily to trace a relationship to another kinsman. The most frequently occurring "tracers" are *magulang* ('parent'), iná ('mother'), amá ('father'), *nunò* ('grandparent'), *amain* ('uncle'), *ale* or *inale* ('aunt').

Those variant terms, however, which are not primarily tracers generally represent a preference either in Manila or in some other Tagalog site. If an informant in a rural site prefers terms not common to that site, he does so for one of three reasons: 1) he is not a native of the place; 2) he is the child of a nonnative; or 3) his post-childhood experience has brought him into frequent and meaningful contact with persons and/or ideas from outside the community.

All kin terms recalled by Loma informants are Tagalog, and all the definitions of the terms are also in Tagalog. Since informants are free to choose the language of the interview, this universal agreement on Tagalog is itself significant.

The number of terms recalled ranges from 15 to 35, with a mean of 23 terms per informant. The absolute number of lexical items elicited is 64 (see Appendix D). This includes synonyms and compound expressions, both of which may be systematically eliminated from the total number.

For purposes of this paper, preference for a kin term is based on frequency of occurrence. A form which occurs more frequently than its synonyms is considered preferred by the community-at-large. It may be said, for example, that in Loma de Gato, ingkóng (f=18) is preferred to lolo (f=8) and *papo* (f=2).

Compound terms may also be eliminated. A compound term always indicates "a kind of something." This "something" is a classificatory kin term on which the speaker elaborates with regard to such components as degree of removal, generation of removal, and sex. There are two patterns for the

formation of compound terms. One pattern consists of a classi-
ficatory kin term, or core, and an explanatory term (ET)
which is linked to the core by the particle *na*:[10]

<center>Core + na + ET.</center>

The terms which follow this pattern are those marking de-
grees of cousinship and those indicating the sex of otherwise
neuter terms:

pinsang makálawá	'second cousin'
anák na lalaki	'male child; son.'

The second pattern for the construction of compound
expressions uses the particle *sa* instead of na:

<center>Core + sa + ET.</center>

Compound terms of this pattern indicate such components as
degree of removal and generation of removal:

pamangkin sa pinsan	'nephew/niece through cousin; cousin's child'
apó sa tuhod	'great-grandchild'
kapatid sa amá	'half-sibling through father.'

Compound terms, of both patterns, may justifiably be elimi-
nated since the core is the most meaningful part of the expres-
sion; it is the only component which may stand alone and still
indicate the kinsman referred to.

Elimination of synonyms and compound expressions re-
duces the list of recalled terms to the most significant items
One more elimination is possible. *Bunsô,* given by two infor-
mants, is defined as 'youngest sibling.' It does not, however,
fit the control frame, He (she) is my   . (*Siya'y
ang aking _____*), unless the meaning changes to
'last-born child.' Bunsô, when it refers to a sibling, is used
with the pronoun *namin,* 'our'; the indirect referent is not Ego
but rather Ego's sibling set.

_____

[10] The Tagalog particle na has two morphophonemes: /na/ occurs
after words ending in all consonants except /n/ and /ʔ/; /ŋ/ occurs
after words ending in a vowel, and it replaces the consonants /n/ and
/ʔ/. /ŋ/ is rendered *ng* in the standard orthography (Buhain 1958)

kinákapatíd

kumáre

kumpare

ninang / ninang

inánák

ninong

asawa

insó / insó

biyenán

siyaho / bayáw hipag

manugang

balae

bilás

pinsan

impó

apó

kakà

nana

ate / ditsé / sansé / dete

mamà

pamangkín

kakâ

kuya / diko / sangkó

kapatíd

ingkóng

ta- / i- náng / tang

aná́k

EGO
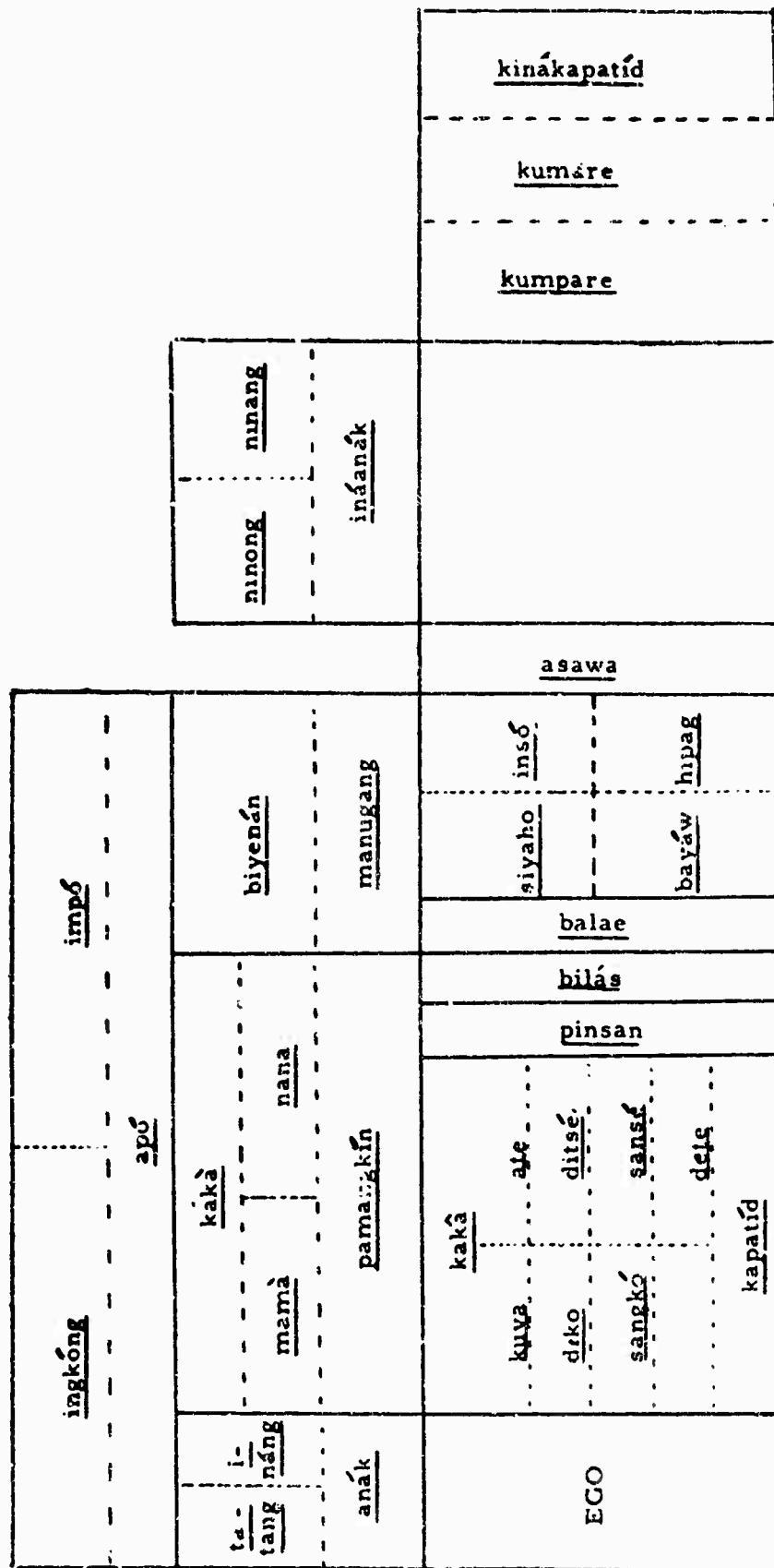
Figure 6. Paradigm of the Tagalog kin terms preferred in Loma de Gato.

The remaining terms constitute the preferred referential kin vocabulary in Loma de Gato. A componential analysis of these terms uses all the components required for an analysis of the Manila system (see above, pp. 131-134). Two additional components are necessary. One, the structural age of the intervening kinsman, is needed to separate such terms as *kakà* ('parent's elder sibling') from *mamà* ('uncle') and *nana* ('aunt'), and to separate insó ('elder brother's wife') from *hipag* ('younger brother's wife; spouse's sister'). The second additional component is needed for birth order distinctions among elder siblings, setting off *diko* from kuya, *sangkó* from diko, and the like. Figure 6 is a paradigm based on Figure 3.

Three measures of conformity

The preceding section discussed individual differences in kin-term preference in Loma de Gato. The total number of kin terms recalled (64) is reduced to the most significant items, approximately 36 in number. In this section are presented techniques for the measurement of the respondent's conformity to both the analyst's criteria and the community's preference in the recall of kin terms and the sorting tests.

Conformity to the preferred vocabulary. There are six kin types which have common synonyms: 'mother,' 'father,' 'uncle,' 'aunt,' 'grandfather,' 'grandmother.' An informant may prefer to use the age-grading system among elder siblings, or he may prefer the simpler Manila usage, wherein kuya indicates any elder brother (regardless of birth order), and ate, any elder sister.

The assumption is made, tentatively, that the first of two or more synonyms recalled is the preferred form. A score of $+1$ is registered every time a local term is preferred, and a score of -1 when a nonlocal term is preferred. Using the seven kin categories mentioned above, each informant's preferences are expressed as a percentage derived by the formula:

$$I = \frac{T}{T + Q}.$$

Here I stands for the informant's conformity to local preference; T, the number of local terms preferred by the informant;

and Q, the number of nonlocal terms preferred by the informant.

Figure 7. Sorting of the furnished terms performed by the community-at-large (based on correlations).

Groupings made	Minimum percentage of concurrence	Most frequently ascribed names
A		
kumpadre kumadre ináanák ninong ninang kinákapatíd	(87.5)	magnininong; magkukumpadre
B		
bilás bayáw hipag	(75.0)	magbibilás; magbabayáw; maghihipag
C		
lolo lola apó	(75.0)	mag-iimpó; mag-iingkóng
D		
tiyo tiya pamangkín pinsan	(62.5)	mag-aale; mag-aamaín
E		
balae biyenán manugang	(54.2)	magbabalae
F		
amá iná anák asawa kapatíd kuya ate	(54.2)	pamilya; mag-anak

Eight respondents have a perfect score; that is, they re-
called only (or first) locally preferred terms. Only four infor-
mants are given scores below 51 per cent. All four of these
were born and reared in the community. The spouse and both
parents of each of the four are from Loma or a barrio contig-
uous to it. Furthermore, none of the four went beyond the
sixth grade of elementary school. Two of them are male, two
are female, and they range in age from 28 to 52.

In short, there is no apparent background characteristic
which affords an explanation of their nonconformity to the lo-
cal kin vocabulary. A suggestion offered below[11] is that the
kin vocabulary common to Manila may be chosen by individ-
uals who see themselves as upwardly mobile in social status.

Conformity to the preferred sorting. Beyond the terms
themselves, there is another factor to consider. The informants
in our Loma de Gato sample were asked to sort the terms we
furnished.[12] Some of these terms were more frequently grouped
with one another than they were with other terms. For exam-
ple. 23 informants (95.8 per cent) placed kumpadre and kumad-
re in the same pile, while only two informants (8.3 per cent)
placed kumpadre and balae in the same pile.

Considering only those groupings made by at least 51
per cent of the sample, the community-at-large may be said to
have agreed on the sort given in Figure 7. A measure of the
informant's conformity to this sort, similar to the one above
for conformity to the preferred vocabulary, assigns a positive
score for agreement on putting together two terms, and a neg-
ative score when an informant combines terms which the com-
munity-at-large does not.

One informant duplicated the community sort, receiving,
therefore, a perfect score. This same informant received the
lowest score when measured for conformity to the preferred
vocabulary. Only five respondents scored below 50 per cent
conformity to the community sort; of these five, only one

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[11] See p. 155 for a presentation of this hypothesis.

[12] We use the furnished list for discussion here because it affords
control, which the recalled terms lack. Parenthetically, it is interest-
ing to note that none of our informants rejected this test, although
the testing situation is quite foreign to their experience.

scored correspondingly low on the vocabulary measure. All five low scorers are native to Loma, and their spouses and parents are from either Loma or a neighboring barrio. They range in age from 36 to 66. The four males are farmers; the one female is the wife of a farmer. In educational attainment they range from "none" to sixth grade of elementary school. In sum, there is no immediately identifiable background characteristic which might explain why these five informants deviate from the barrio norm.

Conformity to the analytical criteria. It was our impression during the pretesting of this technique that some informants were executing the sort in a more "objective" way than were others. That is, they were employing sorting criteria which at least led to the same result as that derived from criteria we used in performing the sort. Our criteria were based on the components in the componential analysis. In some of these cases, the informant's stated rationale for this sort is convincing evidence that the criteria in question are shared by analyst and informant. Other cases leave us doubtful.

Those informants who impressed us as "subjective" both during the pretesting and, again, in Loma appeared to be using criteria quite different from those with which we were familiar. Occasionally, the rationale offered by the informants confirmed the impression that they had specific individuals in mind while executing the sort, and that these individuals shared certain features with one another which could not be known from the terms alone.

Clearly needed at this point is a means of quantification which will support or disprove our impression. Each informant's performance of the sorting test is measured along six parameters corresponding to the components of the analysis. An "ideal sort" of the 26 terms is the basis for measurement. For the criterion of sex, for example, the ideal sort consists of three piles: one, of all male terms; another, of all female terms; and a third, of terms which apply equally to males and females. An informant using sex alone as a sorting criterion receives the rating of 1.00 (or 100 per cent) for sex but lower

scores for other criteria.[13] The score which the informant re-
ceives for each criterion is called the "criterion coefficient"
(CC). It is computed by the formula:

$$CC = \frac{\leqslant Y/X}{P}.$$

Here, P stands for the number of piles in the sort (the infor-
mant being free to make as many or as few piles as he likes);
X, the number of dyads, or total number of combinations of
two terms each, in a pile; and Y, the number of correct dyads
in the pile. "Correct," here, means that two terms, measured
for a given criterion, belong to the same pile because
they share a single dimension of that criterion. Con-
sider, for example, the pile consisting of four terms:
lolo, amá, kuya, bayáw. This group contains six pos-
sible combinations of two terms each. All six of these dyads
are correct when measured for sex, since all four terms in the
pile refer only to males. On the other hand, the pile, lolo, lola,
apó, although scored high for other criteria, is scored low for
sex because the three terms pertain to three different dimen-
sions of the sex criterion.

Figure 8. Ranking of the criteria by mean $\leqslant \Delta CC$ and by
            saliency.

Criterion	Saliency	$\leqslant \Delta CC/24$	Rank
Consanguinity	1.08	.532	1
Generation	2.52	.192	2
Degree	3.18	.172	3
Structural Age	4.04	.104	4
Reciprocity	4.50	.086	5
Sex	5.54	-.056	6

A sort done haphazardly, or at random, may conceivably
be scored high for one or more criteria. To afford a more rea-
sonable basis for comparing one informant's score with anoth-

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[13] Two informants did, in fact, perform the sort in this way during
the pretesting. No informant from the field has yet done so.

er's, rather than the raw CC, we take the difference between the raw CC and a percentage which represents probability. This probability figure is the mean, for each criterion, of 25 random sorts. One random sort consists of just one pile containing all 26 terms. The remaining 24 sorts are sets of three sorts each. A set represents $P = 2$, $P = 3$, and so on until $P = 9$. Nine was the greatest number of piles chosen by a Loma informant.

The significant part of an informant's CC is not, then, the raw score itself but rather the difference between the CC and the mean of the CCs, for that criterion, of the 25 random sorts (CC^m):

$$\Delta CC = CC - CC^m.$$

The sum of these differences ($\Sigma \Delta CC$), divided by the number of criteria (N) measured, is *not* an indication of the informant's objectivity, since a high CC for an important criterion, such as consanguinity, may render the CC for other criteria quite low. This figure does, however, have a positive value for all informants. I take this to mean that our criteria, in some order and to some degree, are subscribed to by all informants.

The importance of a criterion is determined by its rank relative to the other criteria. Rank is assigned according to the mean of the ΔCCs for a criterion ($\Sigma \Delta CC$ divided by the number of informants) and according to the saliency of the criterion with each informant's sorting. That is, among an informant's ΔCCs, a rank of 1 is assigned to the highest ΔCC and a rank of 6 to the lowest, and so on. The results of this procedure are given in Figure 8. Consanguinity appears to be the most important (i.e., salient) sorting criterion, and sex appears to be the least important. The mean ΔCC for sex is the only negative value in the table. Only 11 of the 24 informants register a positive value for this criterion. This means that sex is not a significant sorting criterion, compared with other available criteria, for this population.

Conclusions Suggested by the Findings

Validity of the componential analysis

Tabulation of individual criterion coefficient scores indicates that informants approximate objectivity in differing de-

grees. One explanation for this may be that a high CC is the result of coincidental, rather than identical, criteria on the part of the informant and the analyst. Stated rationales for the sorts, however, render this explanation unsatisfactory. More likely, we may have found a reasonable basis for supporting the proponents of psychological validity.

This support, however, must be qualified. Informants who employed objective criteria in sorting the furnished terms also used these criteria at the higher levels in their sort of the terms elicited in free recall. The consanguineal-affinal-ritual distinction, for example, occurs frequently. At the lower levels of the multilevel sort, however, when these three groups must be subdivided, a much higher degree of subjectivity appears. Sorting criteria at these levels are not predictable from the terms themselves. The shift from strict objectivity to relative subjectivity may lead to cross-referencing of terms; informants frequently place *asawa* ('spouse') with other affinal terms at the higher levels and with consanguineal terms, nearly always correlating with *anák* ('child') at the lower levels.

If, then, informants concur with us in the choice of analytical criteria at one time and do not concur at other times, only a limited claim for the psychological validity of our analysis may be maintained. The solution to this problem, and to other questions of validity in structural models, apparently lies in the realization that a single analysis of human cognition cannot adequately represent the total population of a community.

There is nothing novel in this conclusion. The earliest ethnographers were aware that even the most primitive and isolated societies might have a local philosopher and a village idiot. Obviously, these two individuals would differ considerably in their perception of the world. Diversity of this nature, nevertheless, does not diminish the value of an analysis which is acceptable, with little or no reservation, to the community-at-large.

On the other hand, an analysis for which structural validity may be claimed is valueless, regardless of its elegance, if it is not acceptable to the majority of culture bearers (see Conklin 1962:88-90).

For each of our informants from Loma de Gato, the figure representing $\Sigma \Delta$ CC/N is above zero, that is, above the randomly possible. This means that our analysis of the Tagalog kinship terminology is subscribed to, as well as accepted, by our informants. Had the number of concurring informants been less than 100 per cent, but above a majority of, say, 60 per cent, this conclusion would remain valid. Less than a majority of concurring informants would indicate, on the contrary, that more than one analysis is required. In such a case, it could be hypothesized that two or more cognitively defined subcultures exist, and that their boundaries would correlate with sociological indices as well.

Sharply delineated subcultures are not discernible within Loma de Gato. Nor are they anticipated in a relatively small and self-contained farming community wherein individual experience in the kinship domain is not likely to be varied. Differences which do exist among individuals do not correlate significantly with age, sex, occupation, or educational attainment. More likely, they are a function of native intelligence, or, rather learning ability.[14]

Index kin terms

The study of kin-term distribution throughout the Tagalog area pointed out that the terms for certain kinsmen do not change according to region. Also, within Loma de Gato itself, all informants agree on the glosses, or words, for these kinsmen, and on precisely which kinsmen are covered by the terms. These terms may be said to yield low information; they tell us nothing about the informant's place of origin and nothing about his preferences. These low-information, or non-index, terms are listed below with their core meanings:

anák	'child'
pamangkín	'nephew; niece'
apó	'grandchild'
kapatíd	'sibling'

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[14] Were we to administer an intelligence quotient test to our informants, it is plausible that we would find a significant correlation between our measure of objectivity and a high I.Q. since both tests measure, at least latently, the informant's ability to accommodate himself to the testing situation (cf. Gladwin 1964).

pinsan	'cousin'
asawa	'spouse'
bayáw	'brother-in-law'
hipag	'sister-in-law'
biyenán	'parent-in-law'
manugang	'child-in-law'
bilás	'co-sibling-in-law'
ninong	'godfather'
ninang	'godmother'
ináanák	'godchild'
kumpare	'godchild's father; child's godfather'
kumare	'godchild's mother; child's godmother'
kinákapatíd	'godparent's child; parent's godchild.'

All terms other than those above are index terms. They tell us something about the informant's place of origin and/or something about his personal preferences. Generally, these are terms for grandparents, parents, uncles and aunts, elder siblings, and elder siblings' spouses. The latter two categories are the most useful index to the geographic region of which the terminology is characteristic. Grandparent terms are a useful index to the informant's preferences, most often indicating a choice between the local terms and the Manila terms.

Change in kin-term preference

The kin-term distribution study made it clear to us that the three "well-defined" kin-term regions (see above, pp. 127-129) are not stable. That is, they are now, and apparently have been, changing spatially. In the recent past at least, expansion was the direction of change for all three regions.[15] At present, it appears that Regions II and III are no longer expanding, and that Region I (Greater Manila) is expanding at the expense of all other systems.

As one kin-term region encroaches on another, change is effected first in the town proper, or población, with the barrios following later. In Pasig, Rizal, for example, the spread of

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[15] Tagalog-speaking localities pertaining to none of the three kin-term regions are here referred to as General Tagalog.

Region II was arrested at the poblacion, where this system is preferred, while the barrios continue to use the terms of General Tagalog characteristic of Rizal. The same pattern is seen in Las Piñas, Rizal, Cavite City, and three municipalities of northern Cavite. In all of these sites the Region II terms are still preferred in the barrios while Region I terms are used in the town proper.

Figure 9. Frequency of preference for index terms in Loma de Gato (N=20).

Kinsman	Local term	Manila term	Tracer	Other	Not recalled
'grandfather'	17	3	0	0	0
'grandmother'	16	4	0	0	0
'father'	8	1	2	5*	4
'mother'	13	1	3	0	3
'uncle'	11	3	5	0	1
'aunt'	8	4	4	2	2
'parent's elder sibling'	15	—	—	—	5
'elder sibling'; etc.	15	3	—	—	2
'elder sibling's spouse'	13	—	—	—	7

* All five cases are *amáng* which does, in fact, share currency with *tata* and *tatang*; these three terms are in complementary distribution since no informant gave more than one of them.

Aside from spatial expansion itself, change in kin-term preference has a noticeable generational facet as well.[16] In General Tagalog towns flanking Region II, the term *kaká*, 'elder sibling,' is usually preferred. Respondents of the child generation, however, are familiar with, and they often use, the terms kuya and ate, 'elder brother' and 'elder sister.' Moreover, they often prefer the Region I terms lolo and lola to the local terms for grandparents. In Malabon and Navotas, Rizal,

[16] The generations discussed here are, roughly, the "child genera- tion," below 21 years of age; the "parent generation," from 21 to 45; and the "grandparent generation," above 45.

and in Caloocan City, informants of the grandparent genera-
tion use the elder-sibling terms of Region II, but their chil-
dren and grandchildren generally prefer the terms of Region I.
Occasionally, the "old Tagalog" terms, although preferred by
the grandparent generation, have become "tracers" for the
others:

amá	→ tatang	→ tatay
iná	→ ináng –––	→ nanay
amain – - – –	→ mamà	→ tiyo
ale	→ nana – – - -	→ tiya.

Non-Tagalog immigrants and travelers to Manila learn
the kinship system used there. As a result, the Tagalog terms
most familiar to non-Tagalogs throughout the Philippines are
those common to Manila. The Tagalog "outliers," including
those in Baguio City and parts of Nueva Vizcaya, Palawan.
and Mindanao, generally employ the Manila terms.

It appears that as Tagalog is increasingly accepted as. a
medium of communication in non-Tagalog population centers.
the Manila kinship system, with its relatively narrow recogni-
tion of kinship relations and the accompanying emphasis' on
the nuclear family, will be increasingly preferred.

Change in Marilao

Marilao is within kin-term Region II. Nevertheless. the
referential kinship terminology of Region I is understood and
accepted there. Informants in Loma de Gato, the most remote
barrio of Marilao, mentioned Manila terms in their listing of
kin terms in free recall. Moreover, some informants mentioned
only these terms; this is taken to mean that they prefer the
system of Region I, at least for communicating with outsiders.

All informants were requested to perform a sorting test
of the furnished terms characteristic of Manila. None of the
terms were rejected, and to our knowledge the informants
ascribed to the terms the same meanings they have in Manila.

Most probably it will be proved true that, with improve-
ments in transportation and communications, the referential

kinship terminology characteristic of Manila will replace the Region II system now used in Marilao.

Change and the individual: a hypothesis

Regarding those natives[17] who prefer nonlocal terms, some cases may be explained by the place of origin of a parent. The remaining cases represent a preference for the Manila system, a choice based on frequent contact with people and ideas from outside the community, and/or the maintenance of, or aspiration to, a high social status.

Four of the Loma de Gato informants are nonnatives by our definition. Of the remaining 20 informants, approximately four prefer the Manila terms with consistency. Figure 9 is a table demonstrating the frequency of preference for index terms. Within the next six months a social class study will be conducted in the three research sites for validation of this hypothesis.

For some individuals, this preference for the Manila kinship system may be an index to real or desired upward social mobility and nothing more. For others, however, it may be an indication of a more deeply rooted process. That is, should an informant prefer the Manila kinship system, and also adhere to Western medical concepts (especially concerning cause and cure), then we would hypothesize that he is an instrument of social change. Readiness to accept and subscribe to innovations from Manila should then be evident in more than these two domains. Concurrence of preferences in the kinship and disease domains will be tested within the next six months. It is hoped that findings at this stage will further be validated in the domains of property and causality.

Summary

Activities of the project staff during the second six months of research have consisted primarily of gathering kinship data

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[17] A native is someone who conforms to at least two of the following criteria: 1) he was born in the barrio; 2) he spent his first 12 years in the barrio; 3) he has at least one parent who was born in the barrio. All informants who described themselves as *tagarito*, or 'from here,' during the census and household composition interviews meet this qualification.

from three research sites in Marilao, Bulacan. Data from the
most remote barrio, Loma de Gato, were elicited first and
were partially prepared for analysis. Inferences from this in-
formation confirm the results of pretesting: that our tech-
niques are suited to the eliciting of pertinent data and that,
should cognitively defined subgroups exist, our methods are
adequate for their discovery, description, and analysis. Fur-
ther, we have found a reasonable basis for supporting the pro-
ponents of the psychological validity of structural models, al-
though this support is qualified by our awareness that infor-
mants differ among themselves in their perception of a domain,
and that an informant may perceive a single domain in more
than one way at different levels of abstraction.

Regional variations in the Tagalog kinship system have
been discovered and described. The direction of change in this
segment of the culture is from regional heterogeneity to an
adoption, eventually universal, of the Manila system.

Finally, I present the hypothesis that a preference for the
Manila system, outside Greater Manila, is an index of rela-
tively high social status; concurrently, the adoption of this
system may be an indication of upward social mobility, real or
desired. Innovators in the domain of kinship terminology may
be innovators in other domains as well. This will be tested
with the techniques developed for the investigation of disease
concepts. Description of noninnovators' perception of the
world is of crucial importance to proponents of planned social
change, since it is especially with the conservative element
of the rural population that health innovators, farm develop-
ment workers, missionaries, and other agents of change must
communicate effectively.

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Appendix A

Table 1. Referential kinship terminology used in the furnished list.

Kin term	English equivalent most commonly suggested by informants	Kinsmen covered by the term
Lolo	'grandfather'	grandfather; grandparent's brother; grandparent's sister's husband; grandparent's male cousin; grandparent's female cousin's husband
Lola	'grandmother'	grandmother; grandparent's sister; grandparent's brother's wife; grandparent's female cousin; grandparent's male cousin's wife
Apó	'grandchild'	grandchild; sibling's grandchild; cousin's sibling's grandchild; spouse's sibling's grandchild; spouse's cousin's grandchild
Amá	'father'	father
Iná	'mother'	mother
Anák	'son; daughter'	child
Tiyo	'uncle'	parent's brother; parent's sister's husband; parent's male cousin; parent's female cousin's husband

Appendix A, Table 1 (continued)

Kin term	English equivalent most commonly suggested by informants	Kinsmen covered by the term
Tiya	'aunt'	parent's sister; parent's brother's wife; parent's female cousin; parent's male cousin's wife
Pamangkín	'nephew; niece'	sibling's child; cousin's child; spouse's sibling's child; spouse's cousin's child
Pinsan	'cousin'	cousin (indefinite lateral extension)
Kapatíd	'brother; sister'	sibling
Kuya	'elder brother'	elder brother
Ate	'elder sister'	elder sister
Asawa	'husband; wife'	spouse
Biyenán	'mother-in-law; father-in-law'	spouse's parent
Manugang	'son-in-law; daughter-in-law'	child's spouse
Bayáw	'brother-in-law'	spouse's brother; sister's husband

Appendix A, Table 1 (continued)

Kin term	English equivalent most commonly suggested by informants	Kinsmen covered by the terms
Hipag	'sister-in-law'	spouse's sister; brother's wife
Bilás	'co-brother-in-law'	wife's sister's husband; (sometimes: spouse's sibling's spouse)
Balae	'co-parent-in-law'	child's spouse's parent
Ninong	'godfather'	godfather; godmother's husband
Ninang	'godmother'	godmother; godfather's wife
Ináanák	'godchild'	godchild; spouse's godchild
Kinákapatid	'godbrother; godsister'	godparent's child; parent's godchild
Kumpadre	'compadre'	child's godfather; child's godmother's husband; godchild's father; spouse's godchild's father
Kumadre	'comadre'	child's godmother; child's godfather's wife; godchild's mother; spouse's godchild's mother

Appendix B

Table 2. Referential kirship terminology used in Areas II and III.

Denotata[1]	Area II[2]	Area III[3]
Mo	ináng	ináy
Fa	tatang	tatay
Ch	anák	anák
Sb	kapatíd	kapatíd
ʿSb	kaká	——
Br	kuya	——
Br	diko	——
Br	sangkó	——
¹Si	ate	——
²Si	ditsé	——
³Si	sansé	——
ʿBr	——	kuya[4]
ʿSi	——	ate[5]

[1] The denotatum conventions used in this column are:

Fa	father	Br	brother	Wi	wife
Mo	mother	Si	sister	Sp	spouse
Pa	parent	Sb	sibling	Co	cousin (reckoned as
Ch	child	Hu	husband		in the American kin-
So	son	Da	daughter		ship system)

Superscript "e" is read "elder"; superscript "r" is read "god-" or "ritual." Superscript numbers represent birth order distinctions when they occur with a sibling term: "eldest." "second eldest." "third eldest." Preposed to 'cousin' they indicate "first." "second." "third."

[2] Baliuag. Bulacan.

Lobo and Tanauan. Batangas.

[3] Also. PaʿSbSo.

Also. PaʿSbDa.

Appendix B, Table 2 (continued)

Denotata	Area II	Area III
PaBr; PaSiHu; PaCo (m)[6]	tiyo	tiyo
PaSi; PaBrWi; PaCo (f)[6]	tiya	tiya
Pa'Sb	———	kakà
SbCh; CoCh[6]	pamangkín	pamangkín
Co[6]	pinsan	pinsan
¹Co	pinsang buô	pinsang buô
²Co	pinsang makálawá	pinsang pangálawá
³Co	pinsang makáitló	pinsang pangatló
PaFa; PaPaBr; PaPaSiHu; PaPaCo (r.)[6]	ingkóng	mamay
PaMo; PaPaSi; PaPaBrWi; PaPaCo (f)[6]	impó	nanay
PaPaFa[6]	———	mamay sa tuhod
PaPaMo[6]	———	nanay sa tuhod
ChCh; SbChCh; CoChCh[6]	apó	apó
ChChCh[6]	apó sa tuhod	apó sa tuhod
ChChChCh[6]	apó sa talampakan	apó sa talampakan
Sp	asawa	asawa
Wi	maybahay	maybahay
Hu	tao	tao
SpBr; SiHu	bayáw	bayáw
SpSi; BrWi	hipag	hipag

[6] Indefinite lateral extension

Appendix B, Table 2 (continued)

Denotata	Area II	Area III
ʻSiHu	siyaho	———
ʻBrWi	insó	———
SpPa	biyenán	biyenán
ChSp	manugang	manugang
SpSbSp	bilás	bilás
ChSpPa	balae	baysán
ʻFa (baptism)	ninong (sa binyág)	amáng-binyág
ʻFa (confirmation)	ninong (sa kumpíl)	amáng-kumpíl
ʻFa (matrimony)	ninong (sa kasál)	amáng-kasál
ʻMo (baptism)	ninang (sa binyág)	ináng-binyág
ʻMo (confirmation)	ninang (sa kumpíl)	ináng-kumpíl
ʻMo (matrimony)	ninang (sa kasál)	ináng-kasál
ʻCh (baptism)	ináanák (sa binyág)	anák sa binyág
ʻCh (confirmation)	ináanák (sa kumpíl)	anák sa kumpíl
ʻCh (matrimony)	ináanák (sa kasál)	anák sa kasál
ʻChFa; ChʻFa	kumpare	kumpare
ʻChMo; ChʻMo	kumare	kumare
ʻPaCh; ChʻPa	kinákapatíd	kinákapatíd

Appendix C

Table 3. Componential definitions of the furnished kin terms.

Kin term	Componential definition (see *key*, next page)					
Lolo	a1-2	b1	c1	d1	e3	f1
Lola	a1-2	b1	c1	d1	e3	f2
Apó	a1-2	b1	c1	d2	e3	f1-2
Amá	a1	b2	c1	d1	e3	f1

Appendix C, Table 3 (continued)

Kin Term	Componential definition (see *key*, below)					
Iná	a1	b2	c1	d1	e3	f2
Anák	a1	b2	c1	d2	e3	f1-2
Tiyo	a1-2	b2	c2	d1	e3	f1
Tiya	a1-2	b2	c2	d1	e3	f2
Pamangkín	a1-2	b2	c2	d2	e3	f1-2
Pinsan	a1	b3	c3	d1-2	e1	f1-2
Kapatíd	a1	b3	c2	d2	e3	f1-2
Kuya	a1	b3	c2	d1	e3	f1
Ate	a1	b3	c2	d1	e3	f2
Asawa	a2	b3	c1	d1-2	e1	f1-2
Biyenán	a2	b2	c2	d1	e3	f1-2
Manugang	a2	b2	c2	d2	e3	f1-2
Bayáw	a2	b3	c2	d1-2	e2	f1
Hipag	a2	b3	c2	d1-2	e2	f2
Balae	a2	b3	c2	d1-2	e1	f1-2
Bilás	a2	b3	c3	d1-2	e1	f1-2
Ninong	a3	b2	c1	d1	e3	f1
Ninang	a3	b2	c1	d1	e3	f2
Ináanák	a3	b2	c1	d2	e3	f1-2
Kumpadre	a3	b3	c2	d1-2	e2	f1
Kumadre	a3	b3	c2	d1-2	e2	f2
Kinákapatíd	a3	b3	c3	d1-2	e1	f1-2

Key

A: Consanguinity : a₁ consanguineal
   a₂ affinal
   a₃ ritual

B: Generation : b₁ two generations removed from Ego
   b₂ one generation removed from Ego
   b₃ Ego's generation

Appendix C, Table 3 (continued)

Key (continued)

C: Degree	:	c_1	close (lineal, direct affinal, participating ritual)
		c_2	intermediate (first degree collateral, through one marriage, non-participating—active)
		c_3	distant (beyond first degree collateral, through two marriages, non-participating—passive)
D: Structural age	:	d_1	senior
		d_2	junior
E: Reciprocity	:	e_1	self-reciprocal
		e_2	partially self-reciprocal
		e_3	not self-reciprocal
F: Sex	:	f_1	male
		f_2	female

Appendix D

Table 4. Reference kin terms recalled by Loma de Gato informants (N = 24).

Frequency of recall	Term	Denotata[1]	Saliency of recall[2]	Total Saliency[3]
21	mamà	PaBr (f=20) Pa゛Br (f=1)	11.2	16.1
21	iná (f = 4) ináng (f = 17)	Mo	13.2	17.8
20	ate	゛Si (f=4) ¹Si (f=16)	7.8	14.9
19	kuya	゛Br (f=6) ¹Br (f=13)	7.6	16.5

[1] The denotatum conventions used here are the same as those in Appendix B.

[2] This figure is computed as the sum of all individual orders of recall (O) divided by the frequency of recall (ΣO)

$$\frac{\quad}{f}$$

[3] Total saliency is computed as the sum of all individual orders of recall plus a value of 50 for each informant who did not recall the term, divided by the number of informants (N)

$$\left(\frac{\Sigma(O + 50 (N\text{-}f)}{N}\right).$$

Appendix D, Table 4 (continued)

Frequency of recall	Term	Denotata	Saliency of recall	Total Saliency
19	nana	Pa°Si (f=1) PaCo (f=1) PaSi (f=17)	11.4	29.9
18	ingkóng	PaFa	11.3	21.0
18	hipag	BrWi SpSi	16.8	25.1
17	kakà	Pa°Sb (f=16) SpPaBr (f=1)	8.8	20.9
17	bayáw	SiHu SpBr	13.8	24.4
17	kumare	°ChMo Ch°Mo	14.2	24.7
16	kumpare	°ChFa Ch°Fa	14.5	26.3
15	ditsé	²Si	9.7	22.8
15	kakâ	°Sb (f=13) Pa°SbCh (f= 1) °SiHu (f= 1)	11.1	25.7
15	insó	°BrWi	15.0	28.1
14	kapatíd	Sb	6.9	24.9
14	impó	PaMo	12.0	27.9
14	siyaho	°SiHu	16.7	30.6
13	diko	³Br	9.9	28.3
13	tata (f= 3) tátang (f=10)	Fa	13.3	30.1
12	ale	PaSi	10.1	30.1
12	ninong	'Fa	15.3	32.7
12	ináanák	°Ch	16.2	33.1
11	pinsan	Co	8.8	30.8
11	pamangkín	SbCh	10.7	32.0
11	sansé	³Si	12.6	32.9

Appendix D, Table 4 (continued)

Frequency of recall	Term	Denotata	Saliency of recall	Total Saliency
11	biyenán	SpPa	15.0	34.0
11	ninang	'Mo	15.4	34.2
10	sangkó	³Br	10.8	33.7
9	amá (f=4) amáng (f=5)	Fa	16.9	37.6
9	bilás	SpSbSp	18.6	38.3
8	amaín	FaBr	5.5	35.2
8	pinsang-buô	¹Co	7.5	35.8
8	lolo	PaFa	14.3	38.1
8	lola	PaMo	14.5	38.2
7	apó	ChCh	13.1	33.0
7	pinsang makálawá	²Co	16.4	34.0
7	tiya (f=5) tiyahin (f=2)	PaSi	10.5	38.5
6	anák	Ch	12.0	40.5
6	asawa	Sp	18.1	42.0
6	manugang	ChSp	21.0	42.8
5	pinsang makáitló	³Co	13.2	42.3
4	kamag-anak	PaCoCh (f=2) PaSb (f=1) "distant relative" (f=1)	18.0	23.83
4	dete	⁴Si	21.7	24.5
3	papo, papu	SpFa (f=1) PaFa (f=2)	13.3	39.3
3	apó sa tuhod	ChChCh	18.3	46.0
3	baiae (f=2) kabalae (f=1)	ChSpFa	26.0	47.0
2	bunsô	last born sibling	28.5	48.2

Appendix D, Table 4 (continued)

Frequency of recall	Term	Denotata	Saliency of recall	Total Saliency
1	tatay	Fa	1.0	48.0
1	nanay	Mo	2.0	48.0
1	tiyo	PaBr	3.0	48.0
1	manugang na lalaki	DaHu	9.0	48.2
1	manugang na babae	SoWi	7.0	48.3
1	biyenáng babae	SpMo	9.0	48.3
1	biyenáng lalaki	SpFa	10.0	48.3
1	pinsang maikápat	'Co	11.0	48.4
1	kinákapatíd	'PaCh Pa'Ch	14.0	48.5
1	apó sa talampakan	ChChChCh	15.0	48.5
1	bayáw sa pinsan	CoHu	16.0	48.6
1	apó sa pamangkín	SbChCh	17.0	48.6
1	pamangkín sa pinsang buô	'CoCh	19.0	48.7
1	hipag sa pinsan	CoWi	19.0	48.7
1	maybahay	Wi	21.0	48.8
1	manugang sa pakinabang	ChSpSb	22.0	48.8
1	indapon	PaFa	28.8	49.0

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12. Abstract

The first chapter, concerning the *Iloilo in transition study*, describes the fishing industry of Estancia, Iloilo, a booming fishing town in central Philippines, and attempts to delineate the relationships among the different socioeconomic classes involved in it.

The second chapter is a review of the research on social control systems in different non-Western societies. These systems are studied with the popular dichotomy between norm-oriented control and sanction-oriented control serving as a guideline. However, the ultimate inadequacy of this dichotomy is pointed out, and alternative formulations are presented. The concepts delineated in this review were used in a study of autonomy and dependency among Filipino children which was conducted in Bicol recently.

The third chapter presents findings on the phenomena of altruism and aiding responses. Studies reviewed are classified as either naturalistic, correlational, or experimental in approach. Variables found to bear a significant relationship to altruism and the aiding response are discussed, and suggestions for the conduct of future research on altruism and aiding responses are presented. The concepts outlined here will form the basis of a future study of the aiding response in the Philippines.

The last chapter, on the *Cognitive mapping study*, shows how data gathered during the second six months of the project confirm the suitability of the techniques being employed. A certain measure of support is provided for the psychological validity of structural models. Regional variations in the Tagalog kinship system are described, and a hypothesis on the relationship between kinship terminology and social status is presented.

13. Key words

economic development	aiding responses
fishing	cognitive mapping
entrepreneur	ethnoscience
guilt	psycholinguistics
shame	kinship terminology
child rearing	componential analysis
altruism	